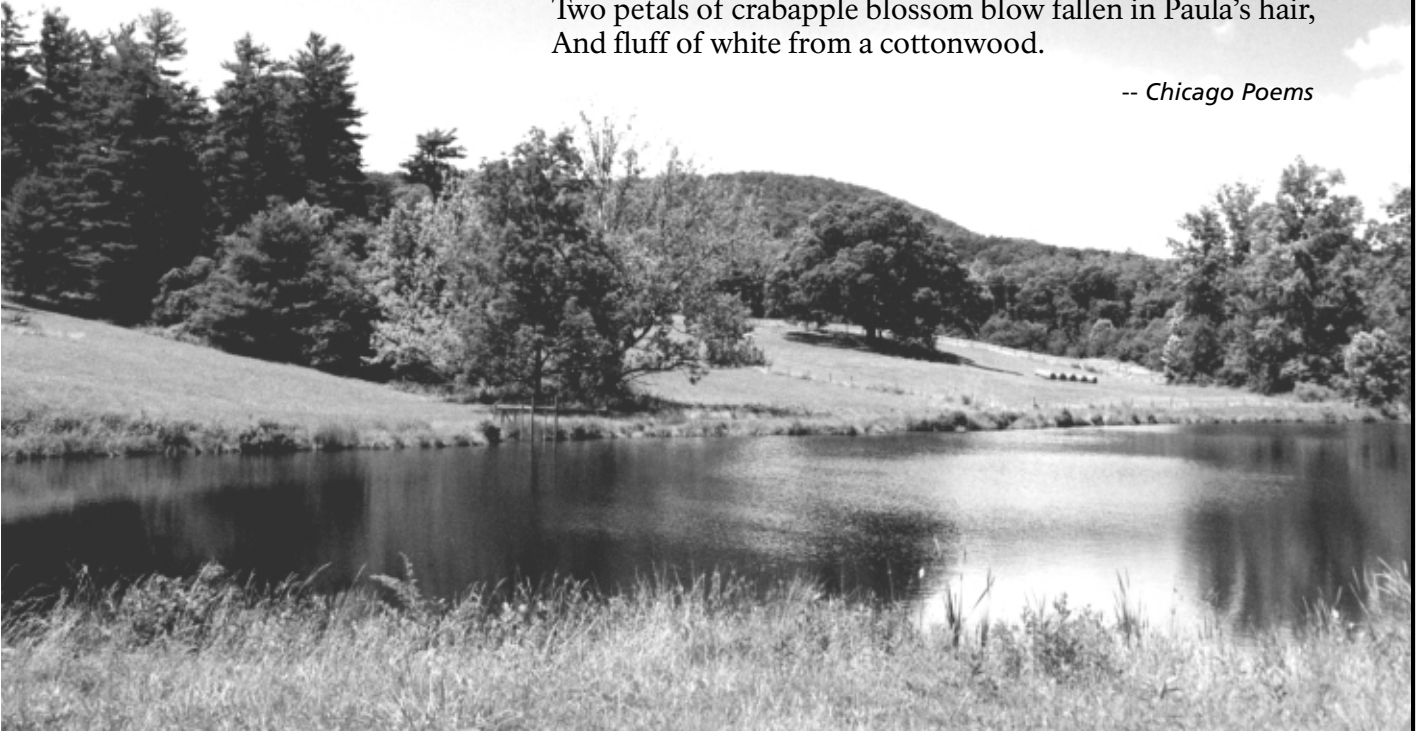




JUNE

PAULA is digging and shaping the loam of a salvia,
Scarlet Chinese talker of summer.
Two petals of crabapple blossom blow fallen in Paula's hair,
And fluff of white from a cottonwood.

-- Chicago Poems



CHAPTER THREE AFFECTED ENVIRONMENT

Chapter Overview

Chapters Three (Affected Environment) and Four (Environmental Consequences) comprise the Environmental Impact Statement (EIS) for this Final General Management Plan. The descriptions, data, and analysis presented focus on the specific conditions or consequences that may result from implementing the alternatives. The EIS should not be considered a comprehensive description of all aspects of the human environment within or surrounding the park.

Chapter Three begins with a short description of how mandatory environmental impact topics required by Council on Environmental Quality (CEQ) regulations and NPS policy are addressed in the EIS. A description of existing environmental conditions follows to give the reader a better understanding of planning issues and establish a benchmark by which the magnitude of environmental effects of the various alternatives can be compared. For easier cross-referencing, the information in Chapter Three is organized by the same impact groups used to organize the impact analysis in Chapter Four.

Mandatory Environmental Impact Topics

CEQ regulations and NPS policy require that certain environmental impact topics be addressed in every EIS. This document addresses the mandatory topics in one of two ways; either a rationale is provided for dismissing the topic from further consideration or the topic is included in the assessment and analysis process.

Mandatory environmental impact topics dismissed from further analysis

The following mandatory environmental impact topics were dismissed from further analysis:

Federal Actions to Address Environmental Justice in Minority Populations and Low Income Populations

Land values, while not excessive by national standards, are considered relatively high locally. The relative cost of land in the Village of Flat Rock has discouraged significant numbers of minority and low income populations from residing in the local

area. U.S. Census model based income and poverty estimates for Henderson County in 1997 (U.S. Census Bureau 1997) indicate the local area has a significantly lower poverty rate (11.4%) than the average rates for North Carolina (12.6%) or the U.S. (13.3%). Since none of the proposed actions is expected to reduce the availability of affordable housing or result in a negative impact to the socioeconomic environment of the local community, minority and low income populations, to the extent they exist, would not be significantly affected.

Wetlands and Floodplains

This topic is intended to prevent development in 100-year floodplains. There are no actions proposed in this plan that would occur in or encroach upon floodplains (Henderson County GIS 2002). With this finding, no further analysis of floodplains is necessary.

Prime and Unique Agricultural Lands

Federal Agencies must assess the effects of their actions on soils classified by the U.S. Natural Resources Conservation Service as prime or unique farmlands. The park does not contain soils categorized as prime or unique (Pence 1998).

Endangered or Threatened Plants and Animals and their habitats

Federal Agencies must assess the effects of their actions on endangered or threatened plants and animals as classified by the U.S. Fish and Wildlife Service. No endangered or threatened plants or animals are known to inhabit the site.

Indian Sacred Sites

Federal Agencies must assess the effects of their actions on known Indian sacred sites. Carl Sandburg Home National Historic Site has not been identified as a sacred site by any federally recognized Indian Tribe or appropriately authorized representative of an Indian Religion. Notwithstanding the specific purposes for which the park was established, the park will remain prepared to comply with the Native American Graves Repatriation Act in the unlikely event of inadvertent discovery of human remains during any earth disturbing activity and make a reasonable good-faith effort to determine any future interests of federally recognized tribes with cultural associations to the site.

Indian Trust Resources

Federal Agencies must assess the effects of their actions on Indian Trust Resources. Carl Sandburg Home National Historic Site is not considered an Indian Trust Resource.

Mandatory Environmental Impact Topics Discussed in Plan

The following mandatory topics warranted more detailed discussion within the body of the plan and are addressed

specifically or in association with a closely related factor in the analysis.

- Integration with local planning processes.
- Energy requirements and conservation potential.
- Natural or depletable resource requirements and conservation potential.
- Urban quality, historic and cultural resources, and design of the built environment.
- Important scientific, archeological, and other cultural resources, including historic properties listed or eligible for the National Register of Historic Places.
- Ecologically critical or natural resources unique to the area.
- Public health and safety.

Description of Existing Conditions

The following discussion provides an understanding of existing environmental conditions potentially affected by implementing the alternatives.

Cultural Resource Management

Carl Sandburg Home NHS contains most of the original Sandburg estate and is managed and preserved in its entirety as a cultural resource of national significance. Generally, park resources can be categorized by association with the main house, Carl Sandburg's literary and musical works, Mrs. Sandburg's dairy goat farm operation, or woodland. The core of the main house-associated elements includes the main house and furnishings, subsidiary buildings and their furnishings, associated trails, and the landscape immediately surrounding those elements. The park's Museum Preservation Center preserves over 330,000 museum objects and archives associated with Carl Sandburg's life and works. The principal features of the farm are the barn (which includes facilities for milking goats), farm manager's house, barn garage, an equipment storage building, furnishings associated with those structures and pasture land. A representative number of each of three breeds of dairy goats owned by the Sandburgs is maintained on the farm as an interpretive tool. Approximately 75% of the park area is covered by a mixed pine and hardwood forest.

Museum Collection

The museum collection contains significant cultural resources of the park and consists primarily of Sandburg's furnishings, library, farm implements, personal belongings, photographs, and archival materials. The museum collection is cared for at a 4,000 SF Museum Preservation Center. The museum

preservation center provides climate controlled storage and work areas for preservation operations. Researchers are currently accommodated at the museum preservation center, however, its size does not allow more than one or two persons to work with the collection at a single time.

Original historic objects are exhibited at the main house (household, library, and archival objects), woodshed (farm equipment), barn garage (farm vehicles), and shaving shed (farm equipment). Some historic objects are exposed to potentially damaging changes in humidity, temperature, and light at all of these locations. Continued exposure of some objects to uncontrolled climatic environments will result in deterioration over time (Van Beck 2000).

Historic Structures

There are over 50 historic structures located within the park. Many of them were used from the Memminger period through the Sandburg's ownership of the estate.

Most historic building exteriors have been preserved or restored to the period of significance and function as important exterior exhibits for the interpretive program of the park. Historic building interiors serve a variety of preservation, interpretation, and administrative functions. Some interiors have been completely preserved or restored, some rehabilitated for alternate uses, and others merely stabilized. An overview of selected historic building interiors in the main house and barn areas is shown in Figures 3-a and 3-b.

Historic Landscape

The historic landscape has been managed to minimize intrusions by non-historic elements since 1974. On the whole, management efforts have been very successful and public comments during scoping indicate a strong connection between the integrity of the historic landscape and visitor enjoyment of the site.

The landscape of the park is, of course, not entirely free of non-historic objects. Over the years, contemporary elements have been added to accommodate the visiting public and provide facilities for managing and maintaining the park. The following contemporary elements are present in the historic landscape at this time:

- Since 1974, the park has provided a shuttle vehicle to transport persons who need assistance up the steep slope from the visitors parking area to the main house area. The current vehicle is a 1996 model gasoline-powered 12 passenger bus. The shuttle operates on demand year around and on a regular schedule during the peak visitation period from May through August and again in October.

- A 12'x 30' trailer comfort station was added near the main house in 1974. This comfort station was originally considered a temporary structure but has continued in service at the same location since its installation.
- The public entrance on Little River Road was enhanced in 1982 and contains a 32 space asphalt parking lot, a 500 SF visitor information and comfort station, a concrete walk and ramp system to connect them, and a non-historic natural surface walking trail around Front Lake. There are currently 4 picnic tables located between the visitor information station and Little River Road.
- In 1985, a 3,000 SF maintenance facility was adapted in the northwest corner of the park. A 4,000 SF Museum Preservation Center was constructed in 1995 and a 2,000 SF headquarters building in 1996 at the same location.
- A 2,000 SF gravel parking area was constructed in a disturbed area approximately 75 yards from the barn in 1997 to allow volunteer workers more convenient and safe access to the main house and barn areas where they typically work.
- An outdoor amphitheater was constructed on a moderate slope 25 yards from the northeast corner of the main house in 1980. The facility covers approximately 5,000 SF and includes bench seating for 75 persons.
- Eight trail side benches and several trash cans have been installed throughout the park over time for visitor convenience.
- Six outdoor interpretive waysides were strategically located throughout the park in 2001.

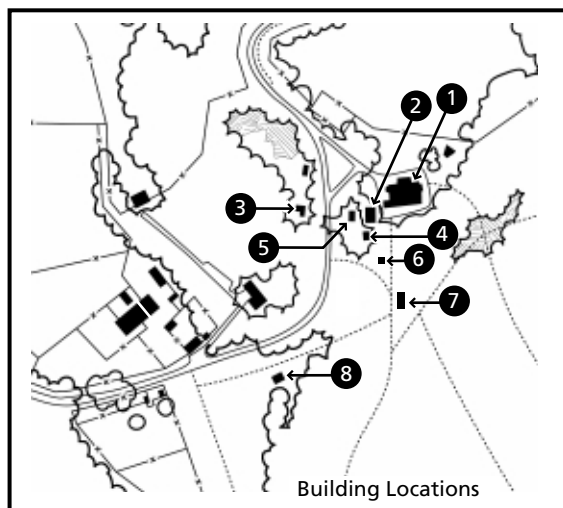
Archeological Resources

A comprehensive archeological investigation of the park has not been undertaken. However, based on previous investigations conducted in association with proposed maintenance, stabilization, and/or development of structures and investigations of several Indian mounds in the general area, there is a strong probability that additional prehistoric and historic archeological resources may exist within the park (Pence 1998). Potential deposits of prehistoric resources are likely to be associated with temporary hunting camps or inhabitations near natural springs. Historic resources are likely to be associated with early settlers of Scottish and Irish descent who occupied the surrounding area from circa 1807 to 1830, before Memminger owned the property.

Interpretation and Museum Operations

Interpretation and museum programs help visitors learn about the importance of Carl Sandburg's life and works. Formal programs are typically ranger or volunteer guided and occur

| Building | Square Feet | Existing Use and Condition of Interior Spaces | Potential for alternate use of interior spaces* | | |
|-------------------------------|-------------|--|--|--|--|
| | | | Can support a variety of interpretation programs | Incorporation of Interpretive media displays** | For restoration, reconstruction, or rehabilitation with appropriate historic furnishings |
| Sandburg Residence | 6000 | Restored and furnished to period of significance. Open to public for guided interpretive tours. About 75% of basement rehabilitated for use as bookstore and admin. area | Poor - non historic changes inappropriate for main floor and second floor Good - in rehabilitated portion of basement | Poor - non historic additions inappropriate for main floor and second floor Good - for inclusion in rehabilitated portion of basement | Good - currently furnished with mostly original furnishings |
| House Garage | 750 | Rehabilitated - Open to public. Important classroom and program staging area | Good - space already rehabilitated and utilities in place. | Good - space already rehabilitated and utilities in place. | Fair - building recently rehabilitated to serve as meeting and classroom space |
| Tenant House | 560 | Rehabilitated - Closed to public. Currently use as office space | Good - somewhat small size but good potential for small groups | Good - somewhat limited by small size | Good |
| Main House Area Chicken House | 480 | Preserved - Closed to public. | Fair - small space could limit potential usefulness | Good | Good |
| Swedish House | 650 | Restored to period of significance. Unfurnished and open to public for self-guided interpretive tours. No public access permitted to second floor | Good - main floor but small space would limit size of classroom. Poor - access is difficult to second floor | Good - on main floor Poor - on second floor due to limited access by small stairs | Good |
| Spring House | 120 | Preserved - Closed to public. Interior empty | Poor - very small space | Fair - very small space limits number of people who could see at one time | Fair - very small space limits number of people who could see at one time |
| Wood Shed | 720 | Preserved - Open for public viewing. Open shed, used to display farm equipment | Poor - not an enclosed space | Good | Good - currently furnished with original furnishings |
| Greenhouse | 500 | Preserved - Closed to public. | Fair - use limited by small size | Good | Good - if use by Sandburgs can be documented |



Building Key

- 1 Sandburg Residence
- 2 House Garage
- 3 Tenant House
- 4 Main House Area Chicken House
- 5 Swedish House
- 6 Spring House
- 7 Wood Shed
- 8 Greenhouse

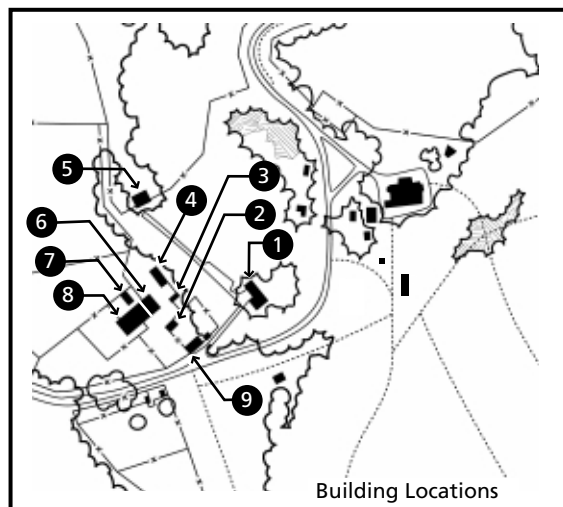
Notes:

- * A recommended treatment strategy is not implied or recommended for any building interior by listing in this table.
- ** No historic building except the main house is considered suitable for the display of sensitive museum resources. Only historic objects appropriate for the existing environmental conditions within a given structure would be considered viable for placement within them.

Figure 3-a. Main House Area Building Interiors

| Building | Square Feet | Existing Use and Condition of Interior Spaces | Potential for alternate use of interior spaces* | | |
|-------------------------|-------------|---|---|--|--|
| | | | Can support a variety of interpretation programs | Incorporation of Interpretive media displays** | For restoration, reconstruction, or rehabilitation with appropriate historic furnishings |
| Farm Manager's House | 1925 | Rehabilitated - Closed to public. Used as park residence | Good - interior spaces already rehabilitated - utilities in place | Good | Good |
| Buck House | 1025 | Preserved - Closed to public. Used for storage of park materials. | Good - large space but rehabilitation could be expensive | Fair - would require significant rehabilitation of interior space | Good - would require significant restoration of interior space |
| Main Barn | 3520 | Restored and functioning as base of goat operation. Open to public. Popular destination for visitors. | Poor - historic character would be compromised | Poor - historic character would be compromised | Good - currently furnished with original or period furnishings |
| Barn Garage | 945 | Restored and furnished to period of significance. Open to public. | Fair - would require some rehabilitation of interior spaces and relocation of historic furnishings | Fair - would require some rehabilitation of interior spaces and relocating of historic furnishings | Good - currently furnished with original or period furnishings |
| Horse Barn | 1000 | Restored. Open to public. Occasionally used as informal interpretive area. | Poor - open barn interior is good for informal group activities but historic character would be compromised by rehabilitation as a multi use interpretive space | Poor - historic character would be compromised | Good |
| Buck Kid Quarters | 210 | Preserved - 50% used for goats 50% used for farm related storage | Poor - too small | Fair - small size limits access to interior spaces | Good |
| Barn Area Chicken House | 144 | Preserved - used for chickens | Poor - very small | Poor - very small | Good |
| Shaving Shed | 738 | Preserved - Farm equipment displayed inside. Storage of wood shavings for barn exhibit | Poor - historic character would be compromised by enclosing | Fair | Good - currently furnished with original furnishings |
| Milk House | 500 | Preserved and furnished to period of significance. Open to public. Popular destination for visitors. | Poor - non historic changes inappropriate for this location | Poor - non historic changes inappropriate for this location | Good - currently furnished with original or period furnishings |

Hit_Interiors_Table2.eps



Building Key

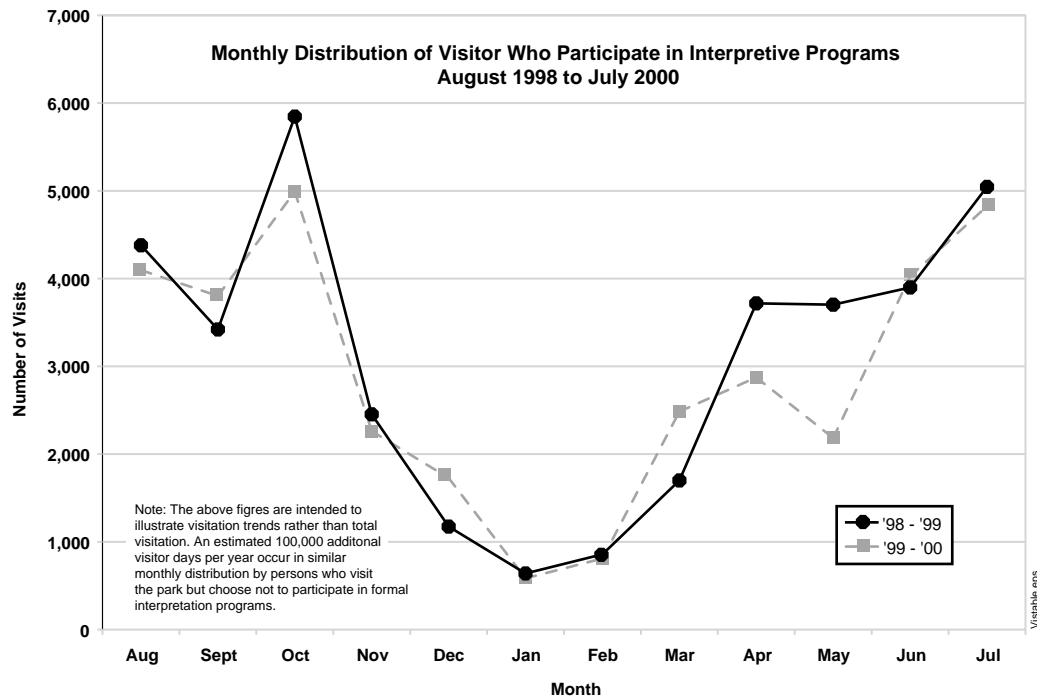
-  Farm Manager's Residence
-  Buck-Kid House
-  Barn Area Chicken House
-  Shaving Shed
-  Buck House
-  Horse Barn
-  Milk House
-  Main Barn
-  Barn Garage

Notes:

- * A recommended treatment strategy is not implied or recommended for any building interior by listing in this table.
- ** No historic building except the main house is considered suitable for the display of sensitive museum resources. Only historic objects appropriate for the existing environmental conditions within a given structure would be considered viable for placement within them.

Figure 3-b. Barn Area Building Interiors

Figure 3-c. Profile of Visitors and Visitation



Two types of visitors generally use park facilities - non-local visitors and local visitors. Non-local visitors are typically interested in touring the residence and barn area or attending one of the many special event activities. Local visitors appear to be Henderson County residents that use the trails for a walking experience. Local visitors are distinguished by early morning arrival times, low vehicle occupancy, athletic attire, the absence of children, the presence of dogs, and familiarity with other visitors with whom they did not arrive or depart. A few local residents walk to the site. Non-local visitors are distinguished by late morning or afternoon arrival times, high vehicle occupancy, casual (nonathletic) attire, the presence of children, and unfamiliarity with park facilities.

Between January 1999 and December 1999, the National Park Service recorded over 50,000 visitors who participated in ranger or volunteer led interpretive programs. This estimate does not include local visitors using the trail system within the park. Based on field observations in July 2000, the number of local visitors appears to be significant, especially during the early morning hours. While no formal data has been collected on the actual number of local visitors, unofficial estimates based on staff observations suggest that the number could exceed 100,000 visitor days per year.

The above graph illustrates the seasonal trends in visitation at the park by graphing monthly data for visitors who participated in interpretive programs from August 1998 to July 2000. Typically, the lowest average monthly visitation occurs in January. The number of visitors increases steadily through early spring, then falls slightly in May. The summer season runs from mid-May through August peaking in July. The fall foliage season brings the greatest number of monthly visitors to the Carl Sandburg Home NHS in October of each year. The minor variation between data for the two years in the analysis is attributed to fluctuations in weather conditions (NPS 2000)

most often at the main house, main house garage, barn, and amphitheater areas. Informal opportunities occur on a limited basis throughout the park.

Public scoping comments indicate that most visitors enthusiastically support interpretive programming, have a strong desire for additional opportunities to learn about the Sandburgs and their lifestyle, and would like additional opportunity to access information contained in the museum collection. Figure 3-c provides a profile of the two types of visitors who generally use park facilities.

Facilities capable of supporting interpretation or museum programs

Opportunities for dynamic and interactive interpretive experiences occur at the main house, amphitheater, and barn areas on a regular basis. The main house is furnished with museum objects and materials and provides opportunities for visitors to view a significant component of the museum collection and learn how the Sandburgs lived and used their home. Many of Sandburg's personal possessions, clothes, awards, and family photographs are located in the museum preservation center. The amphitheater and house garage area currently provide opportunities for performance or lecture-type interpretive experiences.

Visitors may view additional historic objects at the barn garage, woodshed, milk house, and shaving shed. The house garage and the bookstore area in the main house basement are capable of accommodating a traditional indoor classroom type educational experience. Informal indoor learning experiences can occur at the horse barn. Outdoor educational experiences occur park wide when the weather is mild.

Opportunities for solitude or a contemplative experience

Opportunities for visitors to experience solitude or have a contemplative experience are available most often during periods of low visitation (November through April and in September - see figure 3-c) and in areas of the park located away from the parking lot, main house, and barn area. At present, such experiences are common along the wooded trails, at Big Glassy overlook, and in the pasture areas year around except during the highest of peak visitation days. The activity of walking for exercise is becoming increasingly popular with local visitors and tends to reduce opportunities for solitude and contemplation by increasing the frequency of visitors near the main house and barn areas and on the trail to Big Glassy overlook.

Public contact with NPS personnel (staff or trained volunteers)

The park currently provides high quality on-site personal interpretation to visitors primarily at the main house and barn area locations. A well developed and expanding school based

education program provides personal contact opportunities with students in local schools.

Research of Carl Sandburg

Visitors are encouraged to learn more about Carl Sandburg through high quality on-site interpretation. Off-site interpretation occurs by providing educational programs in local schools. Opportunities to expand continued learning and research activities to a larger audience is limited by the difficulty of accommodating large groups of students or researchers for extended periods of time.

The park's archival collection is becoming more intellectually accessible and more widely known. Requests from researchers to use materials will likely increase over time (Van Beck 2000). Outside research is supported to the extent possible by the existing curatorial and interpretation staff.

Local, state, national, and international education programs

Park education programs are conducted primarily on site. Park themes are successfully integrated into local education programs directly by park staff with assistance from area educators.

Teacher workshops are conducted on-site and focus on park resources. Curriculum materials are developed by park staff and local educators.

Natural Resources

The historic landscape of the park is managed primarily as a cultural resource in which natural resource components play an integral role.

The topography of the park is relatively steep and rugged particularly in the Big Glassy - Little Glassy area where slopes sometimes exceed 65 percent. Slopes throughout the remainder of the park vary between 5 percent and 20 percent. Small streams originating on Big Glassy and Little Glassy run through the park and are dammed at several locations to form the small Trout Pond and Duck Pond and the larger Front and Side Lakes. Beyond these artificial lakes, the streams unite to form Memminger Creek which exits the park through a culvert under Little River Road.

Wildlife at the park is restricted to mammals, fish, birds, amphibians, and reptiles native to western North Carolina. Mammals commonly seen in the park include chipmunks, gray squirrels, raccoons, foxes, and deer. Bobcats and bears have been sighted on rare occasions. Fish located in the Side and Front lakes include bass and several varieties of sunfish. The most common birds in the area include blue jays, crows, robins, and several varieties of common songbirds. Amphibians include frogs, toads, and several varieties of salamanders. Reptiles common to the park include snapping

turtles, terrapins, several varieties of lizards, and many kinds of snakes. There are no federal or state listed threatened or endangered species present.

The park contains several low elevation granite rock domes that support a vegetation association that is fairly common in the local area but very rare globally (White, 2002). There are more than nine large patches of this association within the boundaries of the park, some of which are very high quality examples of this plant community.

While significant change to the natural environment is not anticipated in any alternative, the planning team wanted to account for the potential impacts on vegetation resulting from the proposed additional visitor service infrastructure in the alternatives. The following factor describes the existing condition of vegetation at the park.

Existing vegetation

The natural environment of the park is principally a combination of woodland and pasture. Approximately 200 acres of the park is covered by mixed pine and hardwood forest, 38 acres in fenced pasture land, 8.5 acres in ponds, and the remainder in park/residential style landscapes. Figure 3-d shows the general vegetative cover as it exists in the park today.

Minor vegetation removal associated with normal maintenance activities occurs on a regular basis. Typically such actions involve the mowing of lawn and pasture areas, trimming of individual trees to promote or improve plant health, removal of hazardous limbs and branches for safety



Figure 3-d. Aerial view of vegetative cover

reasons, removal of invasive species, and removal of dead or diseased vegetation. Storm damaged vegetation is generally removed after periodic weather events involving high winds, excessive snow, or ice.

Park Operations and Administration

Factors in this category describe the existing conditions related to park operations and administration potentially impacted by implementation of the alternatives. It is important to note that formal position need assessments have not been conducted for most park divisions and that the discussion of current staffing levels is meant to document current conditions rather than contemporary needs in this discussion.

Personnel

Administration and support services personnel provide supervisory management and/or administrative support for park personnel and activities. Staff includes:

- 1 - Full Time (FT) park superintendent/manager
- 1 - FT administrative officer
- 1 - FT administrative assistant

Maintenance staff is well trained and equipped and capable of executing all of the maintenance responsibilities associated with the park. Current staffing levels include:

- 1 - FT chief of maintenance
- 1 - STF (subject to furlough) custodial employee
- 1 - STF track operator
- 1 - FT electrician
- 1 - FT maintenance mechanic
- 1 - FT seasonal gardener

Volunteer labor helps fulfill maintenance responsibilities by assisting with a variety of functions and services. Volunteers donate approximately 500 hours per year tending the flower and vegetable gardens and performing trail work and other maintenance related duties.

A cooperative agreement between the park and a local farmer provides pasture mowing services for 35 acres twice per year. The farmer receives the excess hay generated by the mowing operation in exchange for the service.

Resources management personnel perform a wide variety of administrative and technical functions related to preserving, maintaining, and monitoring cultural and natural resources at the park. NEPA and Section 106 compliance, safety management, law enforcement, natural and cultural resource inventory and monitoring, and museum/curatorial operations are responsibilities of the resources management staff.

Current staffing levels are:

- 1 - FT Chief of Resources Management
- 1 - STF Curator
- 1 - Temporary (Temp) forestry technician
- 1 - Temporary archival technician
- 1 - FT Seasonal museum technician

There is no full time NPS law enforcement presence at the park. One STF ranger/interpretation position is currently vacant due to lack of funding. A Memorandum of Understanding (MOU) with Blue Ridge Parkway provides an NPS law enforcement ranger for a period of 60 days each summer.

Volunteers contribute approximately 1600 hours per year to help manage and preserve the museum collection and archives.

Visitor services personnel provide a full range of quality visitor interpretation and education services to people on and off site. Current staffing levels are:

- 1 - FT chief of visitor services
- 1 - FT park ranger - interpretation/education
- 1 - PT park ranger - interpretation/education
- 1 - STF education program coordinator
- 6 - Temp park guides

Volunteers make a significant contribution to the interpretive and educational program efforts of the park by donating more than 10,000 hours of labor per year.

Parking spaces

Entrance to the visitors' parking area is in the northeast corner of the park on Little River Road. The parking area uses a one-way circulation pattern and vehicles enter from the eastern driveway and exit at the western driveway. The visitor parking area contains 32 spaces.

Signs located in parking area direct visitors to the visitor information station. Trail access to the main house and barn areas begin at the visitor information station. A telephone call box is located near the west end of the parking lot and at the visitor information station which allows visitors to request shuttle bus service to the main house area. Shuttle bus service is available on demand year round and operates on a regular 30 minute schedule during the peak visiting times of mid-May through August and October. Pedestrian access to the visitor information station is via a sloped concrete walkway that does not meet ADA standards

In addition to the 32 parking spaces in the visitor parking area, an MOU with the Flat Rock Playhouse provides overflow parking capacity which allows visitors who cannot find a space

in the visitors' parking area to use the playhouse lot when performances are not scheduled. The agreement also allows playhouse patrons to use the visitors' parking area after 5:00 PM. The Playhouse lot is located approximately 50 feet from the visitors' parking area and provides access to about 15-20 additional parking spaces.

The MOU for shared parking has been in place for 20 years. Over the years, however, the Playhouse has become quite popular and expanded its performance schedule to include both matinee and evening performances throughout the week. This enhanced schedule has significantly reduced the availability of the Playhouse parking area for use by park visitors during peak usage times.

Currently the Flat Rock Playhouse is developing long range plans for the expansion and enhancement of their facility. These plans may consider acquisition of additional property adjacent to their current site that might be used for supplemental parking. Plans for expanded parking at the Playhouse are preliminary and would be initiated at least 5-10 years in the future.

There is an additional 14 space paved parking lot located at the park headquarters and maintenance facility and a 10 space gravel parking area reserved for volunteers located approximately 75 yards from the barn area. Access to these lots is gained through the one lane historic back drive entrance off of Little River Road and use is restricted to NPS employees and NHS volunteers. Visitors are not authorized to park at the park headquarters or maintenance facility or in the volunteers parking area without special permission from the Superintendent to ensure safe passage.

The 1971 Master Plan (NPS 1971) recommended 70 parking spaces to accommodate visitor, employee, volunteer, and bus parking needs. Approximately 56 spaces currently exist on site.

Employee, volunteer, and visitor health and safety

The overall park environment is safe and healthy for employees, volunteers, and visitors. However, two conditions exist where safety is a concern:

Visitor parking area: During periods when the visitor parking area is full and overflow parking is not available at the Flat Rock Playhouse, visitors often leave their vehicles along the shoulder of Little River Road. Parking on the shoulder of Little River Road does not violate any traffic ordinance and occurs on almost a daily basis. When several cars are parked in this manner, visibility is partially reduced for other drivers and pedestrians trying to cross the street. The situation does add significantly to traffic congestion at the park entrance and



Photograph: by David Libman

increases the potential for accidents. A 100' long serpentine concrete walkway with a continuous slope of 10 - 15% connects the visitor's parking area to the visitor information station. The sloped concrete walkway does not meet ADA standards and is a potential safety risk for people with a variety of disabilities.

Back drive traffic: Pedestrians, volunteer-owned vehicles, and park vehicles simultaneously use the gravelled one-lane back drive. A regular two way flow of pedestrians and vehicles moves simultaneously between the headquarters and maintenance buildings and the volunteer parking area for most of the day. Currently, low vehicle speeds, safety training, and observant employees lower the potential for accidents.

Energy conservation

Current levels of energy consumption are not considered excessive. There are two areas where energy conservation could be enhanced.

Traffic congestion: The chronic parking shortage causes traffic congestion at the entrance to the visitors parking area. When all parking spaces are occupied, vehicles circle continuously in and out of the lot waiting for an available space. After several trips through the lot, visitors either give up and leave or park on the shoulder of Little River Road. The continual circulation and on-shoulder parking activity causes through traffic on Little River Road to slow and back up. Congestion is especially intense when patrons of the Flat Rock Playhouse are arriving or departing a performance at the same time. While potential improvements resulting from a proposed parking expansion at the Flat Rock Playhouse exist, the overall traffic pattern and vehicle density at the visitor parking area is expected to worsen as local population increases.

Alternative transportation: Local pedestrian access to the park will be improved by a paved greenway connection to the Village of Flat Rock. The first phase of the project has been constructed. Satellite parking nodes are not being constructed in the current development phase. If the greenway is constructed without parking nodes, there is some potential for additional use pressure on the visitors parking area by persons wishing to leave their vehicle in the NPS lot and walk on the greenway outside the park.

The feasibility of providing some form of public transportation between Hendersonville and the park has been considered but the probability of implementing such a system is uncertain at this time.

Quality of Life and Socioeconomic Environment

Population in the Henderson County, North Carolina area has increased at a steady rate for over 20 years. U.S. Census Bureau statistics (U.S. Census Bureau 2000a) indicate approximately 28% growth between 1990 (64,204 residents) and 2000 (89,173 residents). The Greater Hendersonville Chamber of Commerce (Hendersonville Chamber of Commerce 2000) estimates county population will rise to 93,000 by 2010 and to 97,500 by 2015.

U.S. Census Bureau figures (U.S. Census Bureau 2000b) indicate the racial composition of the population is approximately 93.4% white, 3.3% black, .1% Asian or Pacific Islander, .7% American Indian or Aleut, and 2.8% other. Approximately 5.5% of county residents identify themselves as Hispanic (may be of any race). Age distribution for people living in Henderson County is approximately 22.7% age 0 to 19 years, 44% age 20 to 55 years, and 33.3% over age 55 years.

In 1999, Henderson County had a per capita personal income (PCPI) of \$27,782. This PCPI ranked 13th in the state, and was 105% of the state average, \$26,417, and 97% of the national average \$28,546. The 1999 PCPI reflected an increase of 5% from 1998. The 1998-99 state change was 3.8% and the national change was 4.4% (U.S. Department of Commerce 2002)

In 1999, Henderson County had a total personal income (TPI) of \$2,285,499,000. This TPI ranked 22nd in the state and accounted for 1.1% of the state total. The 1999 TPI reflected an increase of 6.4% from 1998. The 1998-99 state change was 5.2% and the national change was 5.4%. (U.S. Department of Commerce 2002)

Based on 1997 U.S. Census Bureau model-based estimates (U.S. Census Bureau 2000c), approximately 11.4% of persons of all ages in the county are classified as living below poverty level. This figure is lower than State (12.6%) and National (13.3%) averages for the same period.

Earnings by persons employed in Henderson County increased from \$1,165,404,000 in 1998 to \$1,275,150,000 in 1999, an increase of 9.4%. The largest industries in 1999 were services with 22.1% of earnings; durable goods manufacturing, 16.8%; and state and local government, 11.1%. Of industries that accounted for at least 5% of earnings in 1999, the slowest growing from 1998-99 was nondurable goods manufacturing (9.3% of earnings in 1999), which increased 3.2; the fastest was transportation and public utilities (5% of earnings in 1999), which increased 22.9% (U.S. Department of Commerce 2002).

A significant health care industry has developed to serve the large number of retired people who reside in the community. Many jobs in the local area support a growing tourism industry. Retail trade, accommodation and food service, arts, entertainment, and recreation establishments all contribute significantly to the health of the local economy.

The 1997 NC Department of Agriculture Census of Agriculture (NC Department of Agriculture and Consumer Services 1998) lists approximately 44,500 (18.5%) acres in Henderson County as devoted to agricultural production. This figure represents a decrease in acreage of approximately 15% from 1992. During the same period, average farm size decreased 11% and the number of full time farms decreased from 282 to 258. The decrease in land dedicated to agricultural use is noticeable in the local landscape as traditional farm or estate based land uses are converted to uses with distinct suburban overtones.

The market value of all agricultural products sold in Henderson County was \$47 million in 1997, a 10% increase from 1992. While agriculture is a significant contributor to the local economy, agricultural-related employment represents a

relatively small (3%) percentage of the local civilian work force.

Demographic figures support general observations by the planning team that Henderson County is a growing community whose residents are becoming increasingly older and more affluent. The influence of this demographic shift is felt at the park in many ways.

- Community residents are actively engaged and participating in local government and community-oriented activities.
- Many retired persons are willing and eager participants in volunteer activities at the park.
- Day use of the park by local residents has increased steadily over time. The activity of walking for exercise has become particularly popular with retired persons.

Factors in this category describe the existing conditions related to quality of life and the socioeconomic environment potentially impacted by implementation of the alternatives.

Economic contribution to community

As an individual entity, the park contributes to the local economy by attracting several thousand visitors each year. It is also an integral component of the overall tourism experience that makes Henderson County a successful tourist destination. In addition, the park contributes directly to the local economy by hiring permanent and part time employees and purchasing goods and services from local suppliers. The current operating budget of the park is \$923,700 per year. Over 90% of that total directly influences the local economy through employee wages, benefits, and local purchases.

Provides additional opportunities for walking

The demand for safe and attractive walking trails is increasing community wide as the population of retired persons grows. Excellent opportunities to walk for exercise exist at the park and many local residents visit the park specifically for this activity. Only the construction of additional historic walking trails would be considered for the existing site and none are known. Few trail side amenities exist and connection to the greenway system occurs at the park entrance.

Provides incentives for partnering with local governments, community groups, and individual citizens

Park management is actively engaged, dedicated, and a willing member of the local community. It continues to cooperate constructively on issues of mutual interest and concern and works to strengthen its traditionally close relationship with friends support groups, volunteers, local government officials, and local cultural and natural heritage institutions.



HOME THOUGHTS

The sea rocks have a green moss.
 The pine rocks have red berries.
 I have memories of you.
 Speak to me of how you miss me.
 Tell me the hours go long and slow.
 Speak to me of the drag on your heart,
 The iron drag of the long days.
 I know hours empty as a beggar's tin cup on a rainy
 day, empty as a soldiers sleeve with an arm lost.
 Speak to me . . .

-- Smoke and Steel

CHAPTER FOUR

ENVIRONMENTAL CONSEQUENCES OF THE PROPOSAL AND ALTERNATIVES

Chapter Overview

The environmental consequences chapter describes and analyzes potential environmental impacts associated with three alternatives and a No Action alternative. The chapter describes the methodology used to analyze impacts and potential environmental consequences of each alternative. A preferred alternative and an environmentally preferred alternative are identified based on the analysis.

Methodology

In this analysis, the term “factor” describes a potential environmental consequence used to compare the alternatives. Factors represent areas of environmental concern expressed by NPS technical advisors, federal and state agencies, local governments, park staff, community organizations, and individual citizens. High and low assessment criteria were established for each factor. High criteria describe very favorable or desirable environmental conditions. Minimum criterion generally reflect the minimum standards permitted by Federal Law or NPS policy.

Minimum criteria were used to screen for components of alternatives incompatible with law and policy or which caused impairment to park resources. Components of alternatives that did not meet minimum standards were removed from

consideration. A discussion of components considered but rejected appears in Chapter II.

Once adjusted to satisfy minimum criteria, alternatives were assessed for their ability to satisfy the high criteria of each factor and potential cumulative impacts. Cumulative impacts are environmental impacts that result from incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over time. Environmental consequences common to the action alternatives (discussed in Chapter II) were assessed in association with the action alternatives to allow a direct comparison to the No Action alternative.

The following scale was used to assess each factor:

- Exceptional – results of implementing the alternative clearly meet and exceed the high criteria. An assessment of exceptional is the most desirable assessment and indicates that implementing the alternative would most likely result in a highly desirable, unique, or beneficial environmental condition readily noticed by visitors.

- **Moderate** – an assessment of moderate is a positive assessment indicating that implementing the alternative would result in conditions which generally satisfy the high criteria for the factor, but do so in a way that would not be noticed by most visitors.
- **Minor** – results of implementing the alternative do not satisfy conditions described in the high criteria for the factor but clearly exceed minimum criteria and fall well short of resource impairment. An assessment of minor is a neutral assessment acknowledging a less than optimum environmental condition that can be successfully managed to minimize its impact on visitor experience or resource protection goals.
- **Negligible** – results of implementing the alternative are notably less than the preferred condition but still exceed minimum criteria for the factor and do not cause resource impairment. An assessment of negligible generally indicates some visitors may perceive an environmental condition associated with implementation of the alternative as a distraction, inconvenience, or unfulfilled desire.

Selection of a preferred alternative was accomplished using Choosing by Advantages (Suhr 1999) - a decision making process based on calculating and compiling the advantages of different alternatives for a variety of factors. Advantages were determined by calculating the difference between assessments for each factor among the alternatives. Figure 4-a shows the matrix used to convert assessment values to advantages in the analysis.

Once advantages were calculated for each factor, a compiled list was created. A most important advantage was selected

from the compiled list and assigned an importance value of 100. The remaining advantages were then given importance values relative to the most important advantage and totals were calculated for each alternative. The alternative that received the highest compiled score was identified as the preferred alternative. Figure 4-b documents the factors, assessments, and importance values used to determine the preferred alternative.

The environmentally preferred alternative is the alternative that best promotes the national environmental policy as expressed in NEPA; is determined to cause the least damage to the biological and physical environment; and best protects, preserves, and enhances the historic, cultural, and natural resources of the park. The factors used to analyze and select a preferred alternative express the same values used to select an environmentally preferred alternative. Therefore, the environmentally preferred alternative is also considered to be the alternative that achieved the highest total importance value in the Choosing by Advantages analysis.

Assessment Categories and Factors

The following factors and corresponding criteria were used to assess potential environmental consequences. For easier discussion and comparison, like factors are grouped into five assessment categories:

1. Cultural Resource Management
2. Interpretation and Museum Operations
3. Natural Resources
4. Park Operations and Administration
5. Quality of Life and Socioeconomic Environment

Lowest assigned assessment of factor for all alternatives
(noted by an underline in CBA Analysis Summary Table)

| | Exceptional | Moderate | Minor | Negligible |
|-------------|----------------|-----------------|--------------------|--------------------|
| Exceptional | (no advantage) | small advantage | moderate advantage | large advantage |
| Moderate | | (no advantage) | small advantage | moderate advantage |
| Minor | | | (no advantage) | small advantage |
| Negligible | | | | (no advantage) |

Advantage = amount of difference between compared assessments

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Note: a "no advantage" advantage is represented in the CBA Analysis Summary Table by a blank cell

Figure 4-a. Factor Assessment to Advantage Conversion Table

Cultural Resource Management

Actions proposed in this document are subject to section 106 of the 1966 National Historic Preservation Act, as amended in 1992 (16 USC 470); the National Environmental Policy Act; the National Park Service's Director's Order #28 (Cultural Resource Management), Director's Order #2 (Park Planning), Director's Order #24 (NPS Museum Collections Management), and Director's Order #12 (Conservation Planning, Environmental Impact Analysis, and Decision-making) which require the consideration of impacts on cultural resources in or eligible for the National Register of Historic Places.

Factors in this assessment category help focus the analysis on environmental consequences that potentially affect the historic integrity of cultural resources at the park.

Factors:

- Preservation of Historic Building Interiors. High Criteria: All historic building interiors are preserved or restored and furnished to the period of significance. Preservation is preferred over restoration. Minimum Criteria: Rehabilitation - any proposed change to the interior of a historic structure would comply with the Secretary of the Interior's Standards for the Treatment of Historic Properties, DO-28, and other applicable federal policy guidelines. Historic furnishings displaced due to rehabilitation of historic structure interiors will be incorporated into museum storage.
- Introduction of non-period of significance elements to the historic landscape. High Criteria: Only non-period of significance elements essential for visitor safety and orientation are visible. Minimum Criteria: Any non contributing addition to the historic landscape would comply with Interior's Standards for the Treatment of Historic Properties, DO-28, and all other applicable federal policy guidelines.
- Opportunities for solitude or a contemplative experience. High Criteria: Creating and maintaining locations where visitors can experience solitude is preferred condition. Crowding, exposure to external sounds, and/or viewing non historic landscape elements is assumed to negatively impact opportunities for solitude or contemplation. Minimum Criteria: No minimum criteria established.

Interpretation and Museum Operations

Internal scoping revealed a deep concern by park staff and the public about proposed actions that potentially impact interpretive programs, educational opportunities, and museum operations at the park. Actions proposed in this document are subject to the National Environmental Policy Act; the National Park Service's Director's Order #28 (Cultural Resource

Management), Director's Order #2 (Park Planning), Director's Order #24 (NPS Museum Collections Management), and Director's Order #12 (Conservation Planning, Environmental Impact Analysis, and Decision-making) which require the consideration of significant impacts that are likely to be highly controversial and potentially affect important scientific, cultural, or historic resources.

Factors in this assessment category help focus the analysis on environmental consequences that potentially affect opportunities to learn about the life and works of Carl Sandburg.

Factors:

- Provides high quality facilities capable of supporting a variety of interpretation and museum programs. High Criteria: Creating facilities that support both large and small interpretation and museum programs is the most desired condition. Minimum Criteria: A minimum number of facilities is not established.
- Provides opportunities for NPS personnel (staff or trained volunteers) to interact with visitors and interpret the Sandburg story. High Criteria: Multiple opportunities for NPS interpretive and museum operation staff to interact with visitors both in and outside the park is preferred condition. Opportunities would occur in formal and impromptu situations, include individual and group experiences, and be able to support professional and amateur researchers. Minimum Criteria: No minimum standard.
- Provides opportunities for public access to museum collection and related information. High Criteria: Multiple intellectual access points that provide convenient and appropriate public access to more of the museum collection is preferred. Access points would enhance opportunities to experience museum objects as well as information contained in museum archives. Minimum Criteria: Any proposed implementation strategy would comply with DO-28, NPS Museum Handbook, and all other applicable NPS museum policy guidelines.
- Promotes continued learning and research of Carl Sandburg. High Criteria: Provides convenient and appropriate opportunities for professional and amateur researchers to access park resources. Creates interpretive environments that encourage visitors to read and learn more about Carl Sandburg and his work when their visit has concluded. Minimum Criteria: No minimum standard.
- Provides opportunity to link park themes with local, state, national, and international education programs. High Criteria: Creates multiple opportunities for the park to

| ASSESSMENT CATEGORY | FACTORS | | ALTERNATIVES | | | | | | | |
|--------------------------------------|---|---------|------------------------------------|---------------|---------------------|---------------|--------------------|---------------|-------------------|---------------|
| | | | No Action (Existing Conditions) | | Connemara Lifestyle | | Paths of Discovery | | Sandburg Center | |
| | | | | Import. Value | | Import. Value | | Import. Value | | Import. Value |
| Cultural Resource Management | Preservation of historic building interiors | Assess. | Moderate | | Moderate | | Moderate | | <u>Negligible</u> | |
| | | Adv. | Medium advantage | 67 | Medium advantage | 67 | Medium advantage | 67 | | |
| | Introduction of non-contributing elements to the historic landscape | Assess. | Moderate | | Minor | | <u>Negligible</u> | | Minor | |
| | | Adv. | Medium advantage | 100 | Small advantage | 54 | | | Small advantage | 54 |
| | Opportunities for solitude or a contemplative experience | Assess. | Moderate | | Exceptional | | <u>Minor</u> | | Minor | |
| | | Adv. | Small advantage | 48 | Medium advantage | 74 | | | | |
| Interpretation and Museum Operations | Provides high quality facilities to support a variety of interpretation and curatorial programs | Assess. | <u>Negligible</u> | | Minor | | Moderate | | Exceptional | |
| | | Adv. | | | Small advantage | 37 | Medium advantage | 62 | Large advantage | 82 |
| | Provides visitors with opportunities for personal contact with NPS personnel (staff or trained volunteer) | Assess. | Moderate | | Moderate | | <u>Moderate</u> | | Exceptional | |
| | | Adv. | | | | | | | Small advantage | 50 |
| | Provides opportunities for public access to museum collection and related information | Assess. | Minor | | <u>Minor</u> | | Moderate | | Exceptional | |
| | | Adv. | | | | | Small advantage | 54 | Medium advantage | 74 |
| | Promotes continued learning and research of Carl Sandburg | Assess. | <u>Minor</u> | | Minor | | Moderate | | Exceptional | |
| | | Adv. | | | | | Small advantage | 65 | Medium advantage | 90 |
| | Provides opportunity to link park themes with local, state, national and international education programs | Assess. | Moderate | | <u>Moderate</u> | | Moderate | | Exceptional | |
| | | Adv. | | | | | | | Small advantage | 40 |

Notes:

1. A "no advantage" advantage is represented in the importance value row by a blank cell
2. The lowest assessment for each factor is highlighted in the assessment row by a heavy underline. In instances where more than one alternative scores lowest, only one is highlighted.
3. The alternative with the highest advantage in each factor is highlighted by an oval. In instances where more than one alternative has the highest advantage, only one is highlighted.

Figure 4-b. Factors, Assessments, and Importance Values

| ASSESSMENT CATEGORY | FACTORS | | ALTERNATIVES | | | | | | | | |
|--|--|---|---------------------------------|---------------|---------------------|---------------|--------------------|------------------|------------------|-----------------|----|
| | | | Existing Conditions (No Action) | | Connemara Lifestyle | | Paths of Discovery | | Sandburg Center | | |
| | | | | Import. Value | | Import. Value | | Import. Value | | Import. Value | |
| Nat. Res. Mgt. | Potential to preserve existing vegetation | Assess. | Moderate | | Negligible | | <u>Negligible</u> | | Negligible | | |
| | | Adv. | Medium advantage | 52 | | | | | | | |
| Park Operations and Administration | Minimizes maintenance responsibility | Assess. | Moderate | | Moderate | | Minor | | <u>Minor</u> | | |
| | | Adv. | Small advantage | 28 | Small advantage | 28 | | | | | |
| | Provides additional parking spaces | Assess. | <u>Minor</u> | | Exceptional | | Exceptional | | Exceptional | | |
| | | Adv. | | | Medium advantage | 70 | Medium advantage | 70 | Medium advantage | 70 | |
| | Enhances employee, volunteer, and visitor safety | Assess. | <u>Minor</u> | | Minor | | Moderate | | Moderate | | |
| | | Adv. | | | | | Small advantage | 36 | Small advantage | 36 | |
| | Enhances energy conservation or reduces energy consumption | Assess. | Moderate | | Moderate | | <u>Minor</u> | | Minor | | |
| | | Adv. | Small advantage | 17 | Small advantage | 17 | | | | | |
| | Quality of Life and Socio-economic Environment | Provides additional opportunities for walking | Assess. | Minor | | <u>Minor</u> | | Exceptional | | Moderate | |
| | | | Adv. | | | | | Medium advantage | 44 | Small advantage | 29 |
| Provides incentives for partnering with local governments, community groups, and individual citizens | | Assess. | Moderate | | <u>Moderate</u> | | Exceptional | | Moderate | | |
| | | Adv. | | | | | Small advantage | 46 | | | |
| Potential economic benefit to local community | | Assess. | <u>Minor</u> | | Minor | | Moderate | | Moderate | | |
| | | Adv. | | | | | Small advantage | 15 | Small advantage | 15 | |
| TOTAL RELATIVE IMPORTANCE VALUE | | | 312 | | 347 | | 459 | | 540 | | |

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Figure 4-b. Factors, Assessments, and Importance Values (continued)

develop and integrate its programs with public and private organizations that encourage continued learning about Carl Sandburg and his works. Minimum Criteria: no minimum standard.

Natural Resource Management

Actions proposed in this document are subject to the National Environmental Policy Act; the National Park Service's Director's Order #28 (Cultural Resource Management), Director's Order #2 (Park Planning), Director's Order #24 (NPS Museum Collections Management), Director's Order #12 (Conservation Planning, Environmental Impact Analysis, and Decision-making), and Director's Order #77 (Natural Resource Management) which require the consideration of significant impacts likely to affect natural resources in the park.

The reader should note that all lands within the current boundaries of the park are managed as a cultural resource. As such, the physical, chemical, and biological resources located on them are maintained to reflect the attributes most associated with the historic significance of the site. Significant change to the existing natural environment is not anticipated in any alternative. However, the placement of additional visitor service infrastructure would result in some vegetation removal that must be accounted for in the EIS. The following factor focuses the analysis on impacts to the natural environment most affected by removal of vegetation.

Factor:

- Potential to preserve existing vegetation. High Criteria: No removal of vegetation beyond what is required to protect visitor safety or historic resources is the preferred condition. Minimum Criteria: Any proposed implementation strategy would comply with DO-77 and all other applicable federal policy and Federal and state water quality standards.

Park Operations and Administration

A significant concern was voiced by park staff and visitors about actions that increase the park's maintenance, curatorial, and administrative obligations. Factors in this assessment category help focus the analysis on environmental consequences that potentially affect park operations and administrative functions.

Factors:

- Minimizes maintenance responsibilities. High Criteria: Environmental conditions are created that are conducive to efficiently maintaining resources and conducting maintenance operations without need to increase staff or purchase specialized equipment is preferred condition. Minimum Criteria: Minimum

maintenance standards as specified in NPS Management Policies and other Federal and State regulations.

- Provides additional parking spaces. High Criteria: A recent transportation study (National Park Service 2000) conservatively estimated an additional 27 to 45 spaces were needed to accommodate visitors during peak visitation periods. For the No action and Connemara Lifestyle alternatives, the preferred minimum number of additional parking spaces is 45. For Sandburg Center and Paths of Discovery alternatives, the preferred minimum number of additional spaces is 45 plus additional parking to allow safe and convenient access to the visitor center. Minimum Criteria: Because no minimum standard is established by law or policy, alternatives that provide fewer than the 27 additional parking spaces recommended by the transportation study will be considered as satisfying the minimum standard for this factor.
- Enhances employee, volunteer, and visitor health and safety. High Criteria: Minimizing risk and maintaining environmental conditions that are healthy and safe is preferred condition. Minimum Criteria: Alternatives will satisfy all applicable NPS health and safety standards.
- Enhances energy conservation or reduces energy consumption. High Criteria: All facilities and operations incorporate sustainable design elements and practices to ensure that water and energy efficiency, pollution prevention, and waste prevention and reduction are standard practice. Minimum Criteria: new facilities and operations incorporate sustainable design elements and practices to ensure that water and energy efficiency, pollution prevention, and waste prevention and reduction are standard practice. Existing facilities and operations are modified as practicable.

Quality of Life and Socioeconomic Environment

The National Park Service's Director's Order #28 (Cultural Resource Management), Director's Order #2 (Park Planning), and Director's Order #12 (Conservation Planning, Environmental Impact Analysis, and Decision-making) require the consideration of socioeconomic impacts in local and regional communities that could result from implementation of an alternative. Factors in this category help identify and assess significant socioeconomic impacts of the alternatives on quality of life in the surrounding communities.

Factors:

- Provides additional opportunities for walking. High Criteria: Creating additional opportunities for walking is preferred condition. Minimum Criteria: Trails are provided in a manner that does not compromise the

integrity of cultural and natural resources in the park. Any additional provisions for walking would comply with Interior's Standards for the Treatment of Historic Properties, DO-28, and all other applicable federal policy guidelines.

- Provides incentives for partnering with local governments, community groups, and individual citizens. High Criteria: Opportunities are created that require interaction with local governments, community groups, and individual citizens to provide services and facilities to satisfy common needs and desires. Minimum Criteria: No minimum standard.
- Potential economic benefit to community. High Criteria: The park contributes substantially to the local and regional economy by encouraging tourism, purchasing goods and services, and providing jobs. Increasing the length of time visitors remain in park is an important consideration. Minimum Criteria: No minimum standard.

Assessment of Potential Environmental Consequences Associated With the No Action Alternative

Cultural Resource Management

Factors in this category describe environmental consequences to cultural resources that could result from a continuation of current management practices (implementation of the No Action alternative).

Factor: Preservation of Historic Building Interiors

Assessment: Moderate – an assessment of moderate is a positive assessment indicating that implementing the alternative would result in conditions which generally satisfy the high criteria for the factor, but do so in a way that would not be noticed by most visitors.

Park management would rehabilitate additional historic building interiors only for the most critical needs. This alternative assumes no additional maintenance, administrative, or visitor service support facilities would be constructed at the park and that an increase in visitation, operational responsibilities, and demand for improved visitor services over time would pressure park managers to rehabilitate up to two historic structure interiors to address these needs. The rehabilitation of any historic structure would not occur prior to a detailed review of the proposed action by the NPS using the most appropriate level of planning and NEPA compliance documentation.

Cumulative Impacts: No significant negative cumulative impacts to resources outside park boundaries have been identified. Within park boundaries, several historic structures

are already used for administrative or maintenance functions and closed to public access. Given the understanding that rehabilitation can potentially alter historic interiors permanently, the cumulative impact of successive rehabilitations to historic structures over time could limit future management options to preserve or restore those resources.

Factor: Introduction of non-period elements to the historic landscape

Assessment: Moderate – an assessment of moderate is a positive assessment indicating that implementing the alternative would result in conditions which generally satisfy the high criteria for the factor, but do so in a way that would not be noticed by most visitors.

Additional alteration to the historic landscape would not occur. The following non-historic elements exist in the historic landscape at this time and would remain:

- A shuttle vehicle would continue to transport visitors with disabilities up the steep slope from the parking area to the main house area.
- The trailer comfort station near the main house would remain in service at the same location.
- The parking and public entrance on Little River Road, visitor information and comfort station, concrete walks, and a non-historic natural surface walking trail around Front Lake would remain in service. Four picnic tables located between the visitor information station and Little River Road would be maintained.
- The maintenance facility, museum preservation facility, and headquarters building would not be improved or enlarged and remain in their existing locations.
- Volunteers would continue to park in the volunteers parking area.
- The amphitheater would continue in operation at the existing location. The facility would be maintained but not improved.
- Existing trail side amenities would remain in place. Additional trail side benches and trash cans would not be installed.
- Existing outdoor interpretive waysides would remain in place. Additional outdoor waysides would not be installed.

While non-historic elements are evident to the discriminating eye, such additions do not reduce most visitors' ability to comprehend and enjoy the historic ambiance of the site. The majority of visitors find it easy to extrapolate from the

landscape they see to the historic landscape as it existed during the Sandburg residency.

Cumulative impacts: The character of the landscape surrounding the park is gradually becoming more suburban in nature. Some suburban infrastructure such as homes and communication towers is visible from the park. While local subdivision regulations provide park managers an opportunity to consult on proposed developments, suburban growth pressures would likely result in modern development visible from the park. No cumulative impacts inside the park are anticipated beyond what is already present.

Factor: Opportunities for solitude or a contemplative experience.

Assessment: Moderate – an assessment of moderate is a positive assessment indicating that implementing the alternative would result in conditions which generally satisfy the high criteria for the factor, but do so in a way that would not be noticed by most visitors.

Opportunities for solitude or a contemplative experience are common along the wooded trails, at Big Glassy overlook, and in the pasture areas year around except during the highest of peak visitation days. Such experiences occur in the main house and barn areas of the park during periods of low visitation.

As the number of visitors and variety of uses increases, opportunities for solitude and contemplative experiences would decrease slightly over time.

Cumulative impacts: As the character of the surrounding community becomes more suburban, fewer opportunities for solitude and contemplative experiences would exist outside park boundaries and community residents may become more dependent on Carl Sandburg Home NHS as a recreation resource. The local greenway proposal may reduce this impact to a certain degree if it is funded and constructed in its entirety.

Interpretation and Museum Operations

Factors in this category describe environmental consequences related to interpretation and museum operations that could result from a continuation of current management practices (implementation of the No Action alternative).

Factor: Provides high quality facilities capable of supporting a variety of interpretation/education/museum programs.

Assessment: Negligible – results of implementing the alternative are notably less than the preferred condition but still exceed minimum criteria for the factor and do not cause resource impairment. An assessment of negligible generally indicates some visitors may perceive an environmental condition

associated with implementation of the alternative as a distraction, inconvenience, or unfulfilled desire.

Interpretation: The amphitheater, main house, and barn area continue to serve as the principle venues for tour and performance-type interpretive experiences. Opportunities for growth of dynamic and interactive interpretive programs are limited by size and location conflicts.

The house garage is the only facility capable of accommodating an indoor lecture style interpretive program. Because indoor program space is limited, scheduling conflicts occur during periods of inclement weather. Informal learning experiences continue to occur at the horse barn and amphitheater, weather permitting. Outdoor educational experiences are available. Opportunities for additional dynamic and interactive education programs are significantly limited in this alternative.

Museum: Original historic materials associated with the Sandburgs can be viewed at the main house (household and professional objects), woodshed (farm equipment), barn garage (farm vehicles), and shaving shed (farm equipment). Some historic objects continue to degrade because of changes in humidity, temperature, and light at these locations. Access to some historic objects and archives remains inconvenient to the general public because of the limited number of protected environments necessary to increase research or interpretation services.

Cumulative impacts: Interpretation: No significant negative cumulative impacts on interpretation are associated with this factor.

Museum: Historic objects can tolerate a finite exposure to heat, humidity, and light before they must be returned to the museum preservation facility for permanent storage or major conservation treatment. Some historic objects in this alternative would be exhibited in an uncontrolled climatic environment. Objects that have reached their maximum exposure levels would be removed from exhibit status to avoid permanent resource damage. Removal of original objects may need to be reduced by replacement with reproduction or period objects.

Factor: Provides visitors with opportunities for personal contact with NPS personnel (staff or trained volunteers).

Assessment: Moderate – an assessment of moderate is a positive assessment indicating that implementing the alternative would result in conditions which generally satisfy the high criteria for the factor, but do so in a way that would not be noticed by most visitors.

The park continues to provide high quality on-site personal interpretation to visitors at the main house and barn area

locations on a regular basis. School-based education program is provided for students in local schools.

Cumulative impacts: No significant negative cumulative impacts are associated with this factor.

Factor: Provides opportunities for public access to museum collection and related information.

Assessment: Minor – results of implementing the alternative do not satisfy conditions described in the high criteria for the factor but clearly exceed minimum criteria and fall well short of resource impairment. An assessment of minor is a neutral assessment acknowledging a less than optimum environmental condition that can be successfully managed to minimize its impact on visitor experience or resource protection goals.

Visitors may view historic objects at the main house, barn garage, woodshed, milk house, and shaving shed. Many of Carl Sandburg's furnishings and library are exhibited at the main house and can be viewed by participating in the guided house tour. A significant number of Carl Sandburg's personal possessions and almost all historic archives are stored in the museum preservation center. Access to the museum preservation center is available by appointment.

The number of public intellectual access points for information contained in the museum collection is very low (Van Beck, 2000). This alternative assumes that while museum objects and archives would continue to be well maintained, the number of intellectual access points would not increase significantly.

Cumulative impacts: Accumulated exposures to humidity, light, and heat would necessitate the removal of some objects and manuscripts to the museum preservation facility for permanent storage. While the removal of single objects is not necessarily significant, the total number of objects removed over time would result in a significant reduction in public access to information in the museum collection. No significant negative cumulative impacts to resources outside park boundaries have been identified for this factor.

Factor: Promotes continued learning and research of Carl Sandburg.

Assessment: Minor – results of implementing the alternative do not satisfy conditions described in the high criteria for the factor but clearly exceed minimum criteria and fall well short of resource impairment. An assessment of minor is a neutral assessment acknowledging a less than optimum environmental condition that can be successfully managed to minimize its impact on visitor experience or resource protection goals.

Opportunity to expand continued learning and research activities is limited by lack of adequate support facilities and staff. Outside research is supported to the extent possible by the existing curatorial and interpretation staff but

accommodating large groups or individuals for extended periods of time is not possible.

Cumulative impacts: Many people interested in Carl Sandburg today lived during the time when he was actively writing and lecturing. As time goes by, people are becoming less familiar with the author's works. Unless younger people can be exposed to Carl Sandburg's works, interest in continued learning and research about Carl Sandburg is expected to decline over time. Manifestations of this trend have already caused a number of Sandburg books to go out of print.

No significant negative cumulative impacts to resources outside park boundaries have been identified for this factor.

Factor: Provides opportunity to link park themes with local, state, national, and international education programs.

Assessment: Moderate – an assessment of moderate is a positive assessment indicating that implementing the alternative would result in conditions which generally satisfy the high criteria for the factor, but do so in a way that would not be noticed by most visitors.

Park interpretive programs are conducted primarily on site and successfully integrated into local education programs directly by park staff with assistance by area educators. Teacher workshops are conducted on-site and focus on park resources. Curriculum materials are developed by park staff and local educators. The full potential for state, national, and international education programs is not fully realized.

Cumulative impacts: No significant negative cumulative impacts are associated with this factor.

Natural Resource Management

The following factor describes the potential environmental consequences to natural resources that could result from a continuation of existing conditions (implementation of the No Action alternative).

Factors: Potential to preserve existing vegetation

Assessment: Moderate – an assessment of moderate is a positive assessment indicating that implementing the alternative would result in conditions which generally satisfy the high criteria for the factor, but do so in a way that would not be noticed by most visitors.

The natural environment of the park remains predominantly unchanged from existing conditions. Since new construction activity is the primary cause of vegetation removal and ground disturbance and no additional infrastructure is recommended in this alternative, significant impact to natural resources is not expected. Minor vegetation removal associated with normal maintenance activities would occur. Impacts resulting from increased visitor and recreation use would be reduced on site using normal maintenance techniques and procedures.

Cumulative impacts: No significant negative cumulative impacts are associated with this factor.

Park Operations and Administration

Factors in this category describe potential environmental consequences to park administration and operations resulting from a continuation of current management practices (implementation of the No Action alternative). Staffing needs for current conditions are assumed to be represented by the number of STF employees (all of which should be classified as FT) and currently authorized but unfunded ranger and museum technician positions.

Factor: Minimizes maintenance and administrative responsibilities.

Assessment: Moderate – an assessment of moderate is a positive assessment indicating that implementing the alternative would result in conditions which generally satisfy the high criteria for the factor, but do so in a way that would not be noticed by most visitors.

Administration and support services personnel continue to provide supervisory management and/or administrative support for park personnel and activities without increasing staff levels.

More visitors cause work load to increase gradually over time and park staff compensates by limiting its operations to the most essential functions and improving efficiency through new technology.

Maintenance staff continues to fulfill its responsibilities without increasing staff level. Volunteer labor is able to supplement the maintenance operation to a limited degree.

Resources management staff continues to fulfill its responsibilities for NEPA and Section 106 compliance, safety management, law enforcement, natural and cultural resource inventory and monitoring without additional staff.

Curatorial staffing levels would remain insufficient given the continued deterioration of museum objects and the demands of meeting NPS standards for preservation, record keeping, and access for a large museum collection.

The park interpretive staff continues to provide quality visitor interpretation and education services to people at existing levels on site and in the local community. Staffing levels do not increase and volunteers provide a critical contribution to the interpretive and educational program efforts of the park.

Given increasing numbers of visitors, the vulnerability of resources to theft and vandalism, mounting traffic congestion, and changes in the nature of the surrounding community, the part-time law enforcement presence would not be sufficient to properly protect park resources and enforce park regulations.

Cumulative impacts: No significant negative cumulative impacts are associated with this factor.

Factor: Provides additional parking spaces.

Assessment: Minor – results of implementing the alternative do not satisfy conditions described in the high criteria for the factor but clearly exceed minimum criteria and fall well short of resource impairment. An assessment of minor is a neutral assessment acknowledging a less than optimum environmental condition that can be successfully managed to minimize its impact on visitor experience or resource protection goals.

A parking deficit still exists. Eight additional spaces are gained in the visitor parking area by reducing the size of existing spaces and restriping, but this increase is not expected to compensate for the greater number of visitors. Visitors are not authorized to park at the park headquarters or maintenance facility or in the volunteers parking area without special permission from the Superintendent due to the limitations of access along a historic one lane road.

Cumulative impacts: As the number of parking spaces in this alternative is finite and the number of visitors anticipated to grow over time, parking problems at the park would contribute to a growing community-wide parking shortage.

Factor: Enhances employee, volunteer, and visitor health and safety.

Assessment: Minor – results of implementing the alternative do not satisfy conditions described in the high criteria for the factor but clearly exceed minimum criteria and fall well short of resource impairment. An assessment of minor is a neutral assessment acknowledging a less than optimum environmental condition that can be successfully managed to minimize its impact on visitor experience or resource protection goals.

The overall park environment is safe and healthy for employees, volunteers, and visitors. A continuation of existing conditions is not expected to result in the development of unsafe or unhealthy conditions over time.

Parking on the shoulder of Little River Road continues to occur and visibility is partially reduced for drivers and pedestrians trying to cross the street. Increased potential for vehicle and pedestrian accidents during periods of significant traffic congestion exists.

A regular two way flow of pedestrians and vehicles moves between the headquarters and maintenance buildings and the volunteer parking area. Low vehicle speeds, safety training, and observant employees reduce the potential for accidents.

Cumulative impacts: Exposure to health and safety risks for employees, volunteers, and visitors near the visitors parking area and on Little River Road could increase slightly over time as a result of increased vehicle traffic. Risk could be reduced

by adding traffic control devices at critical intersections but such measures might negatively impact the historic character of the park and surrounding neighborhood.

Factor: Enhances energy conservation or reduces energy consumption.

Assessment: Moderate – an assessment of moderate is a positive assessment indicating that implementing the alternative would result in conditions which generally satisfy the high criteria for the factor, but do so in a way that would not be noticed by most visitors.

Excessive energy consumption does not result from current NPS activity. A continuation of existing conditions is not expected to increase the level of energy consumption significantly over time. No new structures that require the consumption of additional energy would be built.

Vehicles continuously circulating in the visitor's parking area waste energy and cause traffic congestion on Little River Road. Congestion is especially intense when park visitors and patrons of the Flat Rock Playhouse arrive or depart at the same time.

Public transportation to the park is not assumed to be provided in this alternative.

Cumulative impacts: No significant negative cumulative impacts are associated with this factor.

Quality of Life and Socioeconomic Environment

Factors in this category describe potential environmental consequences to quality of life and socioeconomic values resulting from a continuation of current management practices (implementation of the No Action alternative).

Factor: Provides additional opportunities for walking.

Assessment: Minor – results of implementing the alternative do not satisfy conditions described in the high criteria for the factor but clearly exceed minimum criteria and fall well short of resource impairment. An assessment of minor is a neutral assessment acknowledging a less than optimum environmental condition that can be successfully managed to minimize its impact on visitor experience or resource protection goals.

Opportunities to walk for exercise are available but additional walking trails are not constructed. Trail side amenities remain at existing levels and connection to the greenway system occurs at the park entrance.

Cumulative impacts: No significant negative cumulative impacts are associated with this factor. Local greenway system helps reduce some of the impact of not expanding walking opportunities for local residents in the park.

Factor: Provides incentives for partnering with local governments, community groups, and individual citizens.

Assessment: Moderate – an assessment of moderate is a positive assessment indicating that implementing the alternative would result in conditions which generally satisfy the high criteria for the factor, but do so in a way that would not be noticed by most visitors.

Park management remains engaged, dedicated, and a willing member of the local community. It cooperates constructively on issues of mutual interest and concern and works to strengthen its traditionally close relationship with friends support groups, volunteers, and local government officials.

Cumulative impacts: No significant negative cumulative impacts are associated with this factor.

Factor: Potential economic benefit to community.

Assessment: Minor – results of implementing the alternative do not satisfy conditions described in the high criteria for the factor but clearly exceed minimum criteria and fall well short of resource impairment. An assessment of minor is a neutral assessment acknowledging a less than optimum environmental condition that can be successfully managed to minimize its impact on visitor experience or resource protection goals.

The park contributes to the local economy by attracting tourists, providing permanent and part time employment opportunities, and purchasing goods and services from local suppliers. While the exact amount contributed to the local economy by these actions is unknown, it is logical to assume that positive economic benefit results from increased expenditures by the park. It is assumed that because additional interpretive programs and resources are not included in this alternative, length of stay per visitor would not increase substantially. Overnight stays and expenditures by visitors at local businesses could increase slightly in conjunction with the increase in total visitors over time.

Cumulative impacts: No significant negative cumulative impacts are associated with this factor.

Summary of adverse effects that cannot be avoided

These are impacts that cannot be fully mitigated or avoided. Exposure of historic artifacts and manuscripts to light, heat, and humidity would continue, ultimately resulting in their removal to the museum preservation facility for permanent storage. Such impacts would be more significant in the No Action alternative as fewer climate-controlled environments are in place to slow the deterioration process and provide public access to historic artifacts and manuscripts.

Summary of irreversible or irretrievable commitments of resources

Irreversible commitments are those that cannot be reversed, except perhaps in the extreme long term. Irretrievable commitments are those that are lost for a period of time.

Irreversible commitments: Historic objects can tolerate only a finite amount of exposure to heat, humidity, and light before they must be returned to the museum preservation facility for permanent storage or major conservation treatment. In the No Action alternative, exposure of historic artifacts and manuscripts to light, heat, and humidity would continue (particularly in the main house), ultimately resulting in their removal to the museum preservation facility for permanent storage. Overexposure of historic artifacts and manuscripts to light, heat, and humidity would cause significant deterioration in those resources that cannot be reversed.

Irretrievable commitments: No irretrievable commitments have been identified for this alternative.

Summary of the relationship between short-term uses of the environment and maintenance and enhancement of long-term productivity

For the purposes of this discussion, short term is defined as the time span for which this General Management Plan is expected to be effective (generally assumed to be 15-20 years) and long term is defined as a period beyond that time.

In the No Action alternative, the short term benefits of increasing visitor understanding of the Sandburg story by providing public access to historic objects is facilitated by the display of sensitive materials in uncontrolled climatic environments. Because these objects can tolerate only a finite exposure to such conditions and the No Action alternative does not provide additional public access points that protect objects from such exposures, the long term productivity of these sensitive historic resources is assumed to be reduced.

Assessment of Potential Environmental Impacts Associated With the Sandburg Center Alternative.

Cultural Resource Management

Factors in this category describe impacts to cultural resources that could result from implementing the Sandburg Center alternative.

Factor: Preservation of Historic Building Interiors

Assessment: Negligible – results of implementing the alternative are notably less than the preferred condition but still exceed minimum criteria for the factor and do not cause

resource impairment. An assessment of negligible generally indicates some visitors may perceive an environmental condition associated with implementation of the alternative as a distraction, inconvenience, or unfulfilled desire.

No historic building interior would be rehabilitated for administrative, storage, or maintenance use. Over time, all administrative and maintenance operations based in historic structures, with the exception of the visitor contact area in the main house basement, would be relocated to the park services or visitor services zones.

The exteriors of historic structures would not be altered by the proposed action and all exterior structure conditions would be preserved or restored to the period of significance over time.

Park management would rehabilitate additional historic building interiors to provide additional space for interpretive programs. The exact location, number, and functions of historic structure interiors rehabilitations would be determined by a future Development Concept Plan. It is important to note that no rehabilitation of an historic structure interior would occur prior to a detailed documentation of the historic resource by the NPS and a public review of the proposed NPS rehabilitation action using the appropriate level of park planning and NEPA compliance documentation.

Cumulative Impact: No significant negative cumulative impacts to resources outside park boundaries have been identified. Inside the park, the cumulative impact of multiple rehabilitations to historic structure interiors over time could limit future management options to preserve or restore those resources.

Factor: Introduction of non-period elements to the historic landscape

Assessment: Minor – results of implementing the alternative do not satisfy conditions described in the high criteria for the factor but clearly exceed minimum criteria and fall well short of resource impairment. An assessment of minor is a neutral assessment acknowledging a less than optimum environmental condition that can be successfully managed to minimize its impact on visitor experience or resource protection goals.

Non-historic elements would be most evident in the visitor services and park services zones where additional infrastructure is needed to accomplish the enhanced interpretive and educational goals of the alternative. Non-historic elements introduced into the historic interaction zone would be accomplished in such ways as to protect the visitor's ability to comprehend and enjoy the historic ambiance of the site. The majority of visitors would find it relatively easy to extrapolate from the landscape they see to the historic landscape as it existed during the Sandburg residency. Non-

historic elements would be minimized in the historic discovery zone.

The following non-historic elements are proposed or present in the historic landscape for this alternative:

- An increased number of visible interpretive waysides would be placed near trails in the visitor services and historic interaction zones. The appropriate number and location for these elements would be determined in a comprehensive interpretive master plan, cultural landscape report, trail management plan, or development concept plan.
- The existing trailer comfort station near the main house would be replaced by a sensitively designed new facility of approximately the same size at the same location. Design alternatives for the new facility would be developed and coordinated with the State Historic Preservation Officer as required by NPS policy.
- The parking and public entrance area on Little River Road would be redesigned and enlarged to accommodate additional vehicles. Design alternatives for these improvements would be proposed in a development concept plan and coordinated with the State Historic Preservation Officer and the public as required by NPS policy.
- Visitor service infrastructure would be enhanced in the visitor services zone by modifying the visitor information and comfort station to provide additional interpretive, educational, and information capabilities. The non-historic walking trails in the visitor services zone would remain and additional trails could be added. A small area for picnic tables could be included in the design if desired. Design alternatives for these improvements would be developed in a development concept plan and coordinated with the State Historic Preservation Officer and the public as required by NPS policy.
- A shuttle vehicle would continue to transport visitors who need assistance up the steep slope from the parking area to the main house area. The visual impacts of the transport vehicle would be reduced by replacing it with a less visually and audibly intrusive vehicle.
- The existing amphitheater would be replaced by a new facility constructed at one of the three approved sites.
- The historic landscape of the park would represent the period of significance as directed in the zone descriptions of this GMP. The landscape of the old amphitheater would be restored to period conditions. Site specific historic landscape management and implementation procedures within specific zones would be recommended

and documented in a cultural landscape report or development concept plan.

- Trail side amenities such as benches and trash receptacles would occur in the historic interaction zone. Visible interpretive media, trail side benches, trash cans and other nonessential visitor services infrastructure would be removed from the historic discovery zone.
- The maintenance facility, museum preservation facility, and headquarters building would remain in the same locations. Facilities could be enlarged as needed. All administrative and maintenance use of historic structures in the historic interaction and historic discovery zone would be moved to the park services or visitor services zone over time.
- Volunteers parking area would be enlarged by approximately 1000 SF and redesigned to improve traffic flow and accessibility.

Cumulative impacts: The character of the landscape surrounding the park is gradually becoming more suburban in nature. Proposed improvements to the visitor parking area and construction of a new visitor center and parking area, when combined with other potential commercial and residential developments in the Village of Flat Rock would contribute to the overall trend of suburbanization in the local area. The NPS can reduce impacts associated with new park infrastructure by using sensitive design and construction techniques and protecting 110 undeveloped acres between Big Glassy and Little River road. However, some contribution to the overall trend of higher development densities in the local landscape is likely to occur.

Factor: Opportunities for solitude or a contemplative experience.

Assessment: Minor – results of implementing the alternative do not satisfy conditions described in the high criteria for the factor but clearly exceed minimum criteria and fall well short of resource impairment. An assessment of minor is a neutral assessment acknowledging a less than optimum environmental condition that can be successfully managed to minimize its impact on visitor experience or resource protection goals.

Opportunities for solitude or contemplative experiences would be less frequent in this alternative than the No Action alternative and the Connemara Lifestyle alternative. Multiple activities occurring near the main house and barn areas could reduce opportunities for solitude in those areas. Visitors would continue to find solitude or contemplative experiences along the wooded trails, at Big Glassy overlook, and in the pasture areas on most non-peak visitation days. The NPS can reduce impacts on solitude associated with new park programs and infrastructure by protecting the 110 undeveloped

acres between Big Glassy and Little River road and providing opportunities for a woodland walking experience there.

Cumulative impacts: As the character of the surrounding community becomes more suburban, fewer opportunities for solitude and contemplative experiences would exist outside park boundaries. The addition of an off-site visitor center would make the local community a more desirable tourism destination and attract additional people to local neighborhoods. Growth pressures may increase on community and park resources as a consequence of rising development and population pressures. Presumably opportunities for solitude and contemplative experiences would be reduced inside and outside the park over time. The NPS can reduce cumulative impacts by protecting the 110 undeveloped acres between Big Glassy and Little River road and providing opportunities for a woodland walking experience there.

Interpretation and Museum Operations

Factors in this category describe impacts related to interpretation, education, and museum operations that could result from implementing the Sandburg Center Alternative.

Factor: Provides high quality facilities capable of supporting a variety of interpretation/education/museum programs.

Assessment: Exceptional – results of implementing the alternative clearly meet and exceed the conditions described in the high criteria. An assessment of exceptional is the most desirable assessment and indicates that implementing the alternative would most likely result in a highly desirable, unique, or beneficial environmental condition readily noticed by visitors.

Interpretation: A new visitor center facility would provide a venue capable of integrating new technologies and techniques with interpretive programs. Large and small group interpretive activities could be accommodated easily. New amphitheater facility provides an additional high quality venue for outdoor interpretive programs. Several multipurpose interpretive venues would be provided in rehabilitated historic structure interiors in the historic interaction zone. An expansion or renovation of the existing visitor information station in the visitor services zone would serve as an interpretive resource. Use of park resources for research is greatly enhanced by providing additional safe and appropriate intellectual access points for scholars, writers, and artists.

Museum: Original historic objects and archives contained in the park's museum collection can be exhibited in a secure and climate controlled environment at the new visitor center and renovated visitor information station. Intellectual access points are increased and museum resources become a more accessible component of the visitor experience. This alternative makes it more feasible to borrow and exhibit

Sandburg related objects or archives from other private or public museum collections.

Cumulative impacts:

Interpretation: No significant negative cumulative impacts on interpretation are associated with this factor.

Museum: Historic objects can tolerate only a finite amount of exposure to heat, humidity, and light before they must be returned to the museum preservation facility for permanent storage or major conservation treatment. Objects would reach their maximum exposure levels at a slower rate if they are exhibited in a climate controlled environment.

Factor: Provides visitors with opportunities for personal contact with NPS personnel (staff or trained volunteers).

Assessment: Exceptional – results of implementing the alternative clearly meet and exceed the high criteria. An assessment of exceptional is the most desirable assessment and indicates that implementing the alternative would most likely result in a highly desirable, unique, or beneficial environmental condition readily noticed by visitors.

This alternative creates an environment where opportunities for interaction between visitors and NPS staff would be plentiful by providing additional interpretive venues and increased access to resources for programs and exhibits.

Cumulative impacts: No significant negative cumulative impacts are associated with this factor.

Factor: Provides opportunities for public access to museum collection and related information.

Assessment: Exceptional – results of implementing the alternative clearly meet and exceed the high criteria. An assessment of exceptional is the most desirable assessment and indicates that implementing the alternative would most likely result in a highly desirable, unique, or beneficial environmental condition readily noticed by visitors.

The number of public intellectual access points for information contained in the museum collection is greatly increased by the addition of a new off site visitor education facility, renovated visitor information station, and the creation of a high quality and user friendly resource database. Data base information could be accessed and used by visitors both on and off site using the internet or other high technology media formats.

New visitor center would make it possible to exhibit many of the objects and manuscripts currently in storage at the museum preservation facility. This facility would also make it possible to borrow and interpret Sandburg related resources from other institutions' collections in a safe and protected environment.

Cumulative impacts: Accumulated exposures to humidity, light, and heat would be reduced and extend the time those objects and manuscripts can be exhibited would be substantially increased over the no action and Connemara Lifestyle alternatives.

No significant negative cumulative impacts to resources outside park boundaries have been identified for this factor.

Factor: Promotes continued learning and research of Carl Sandburg.

Assessment: Exceptional – results of implementing the alternative clearly meet and exceed the conditions described in the high criteria. An assessment of exceptional is the most desirable assessment and indicates that implementing the alternative would most likely result in a highly desirable, unique, or beneficial environmental condition readily noticed by visitors.

This alternative considers building interest in continued learning and research to local, regional, and worldwide audiences one of its top priorities. The new visitor center provides public access to high quality venues that can be used for interpretation, education, and research programs. Accommodating large groups or individuals for extended periods of time is possible. Outside research can be supported and is encouraged.

This alternative builds on the assumption that Carl Sandburg's works are as relevant to contemporary American society today as they were when first published and that by providing research, education, and interpretive activities a new generation of Americans would develop an interest in Carl Sandburg. As interest builds over time, demand for Sandburg works may help keep Sandburg works in print.

Cumulative impacts: No significant negative cumulative impacts to resources outside the park have been identified for this factor.

Factor: Provides opportunity to link park themes with local, state, national, and international education programs.

Assessment: Moderate – an assessment of moderate is a positive assessment indicating that implementing the alternative would result in conditions which generally satisfy the high criteria for the factor, but do so in a way that would not be noticed by most visitors.

Park education programs in this alternative are conducted both on and off site with a strong focus on internet based outreach to a global audience. Park management encourages partnerships with national and global Sandburg scholars and institutions to develop education programs. Teacher workshops are conducted in partnership with universities and museums staffed by Sandburg scholars. Facilities for

workshops and other education oriented events are available. Curriculum materials are developed and directed toward a global audience and conducted in partnership with larger national initiatives whenever possible.

Cumulative impacts: No significant negative cumulative impacts to resources outside the park have been identified for this factor.

Natural Resource Management

This factor describes the potential changes to vegetation that could result from implementing the Sandburg Center alternative.

Factor: Potential to preserve existing vegetation

Assessment: Minor – results of implementing the alternative do not satisfy conditions described in the high criteria for the factor but clearly exceed minimum criteria and fall well short of resource impairment. An assessment of minor is a neutral assessment acknowledging a less than optimum environmental condition that can be successfully managed to minimize its impact on visitor experience or resource protection goals.

Use of trails will increase as more visitors come to the park. While the future physical impact of visitors to vegetation near trails is difficult to quantify, it is logical to assume that impacts will increase in proportion to the rise in people using the trails. Impacts to sensitive vegetation associated with trail system use would be reduced by tightly controlling access to granite domes and increasing maintenance and enforcement activities in heavily affected or sensitive areas.

The construction of new visitor service infrastructure would result in removal of vegetative cover and cause associated ground disturbance. Three significant developments are proposed within the present boundaries of the park in this alternative.

Parking area expansion: It is expected that enlarging the visitor parking area would cause the removal of some tree cover in the vicinity of Front Lake. Grading of the landscape is also expected as the topography of the site is moderately sloping. While actual design alternatives and construction specifications are beyond the scope of this document, it is estimated that construction activity could impact approximately 1.25 to 1.5 acres of mixed pine and hardwood woodland in the visitor services zone.

Approximately 500 to 1000 SF of mixed pine and hardwood forest would be removed to enlarge the volunteer parking area.

The immediate impacts associated with construction are: disturbed earth, dust, noise above the ambient, and disarray. These are short-term impacts that would be gone at the conclusion of the construction phase and may be reduced through construction site Best Management Practices. Soil

runoff to Front Lake, Side Lake, and Memminger Creek would be reduced by interception of surface water flowing over exposed earth with filter fabric barriers or other appropriate techniques. Regularly sprinkling vehicle circulation routes with water would reduce dust. Regular pick up and disposal of litter and construction debris would reduce the litter problems. Noise and disarray are short term impacts and would disappear at the conclusion of the activity. Remaining for the long term would be additional parking areas and walkways.

Amphitheater relocation: It is expected that relocating the existing amphitheater to one of the three recommended areas would cause the removal of tree cover. Grading of the landscape is expected as the topography is slightly to moderately sloping at each location. While site design alternatives and construction specifications are beyond the scope of this document, it is estimated that construction activity could impact approximately 5000 SF of mixed pine and hardwood woodland or pasture in the historic interaction zone. The immediate impacts associated with construction are: disturbed earth, dust, noise above the ambient, and disarray. These are short-term impacts and would disappear at the conclusion of the construction phase. Soil runoff to Front Lake, Side Lake, and Memminger Creek would be reduced by interception of surface water flowing over exposed earth with filter fabric barriers or other appropriate techniques. Regularly sprinkling vehicle circulation routes with water would reduce dust. Regular pick up and disposal of litter and construction debris would reduce the litter problems. Noise and disarray are short term impacts of the construction process and would disappear at the conclusion of the activity. Remaining for the long term would be an amphitheater and associated walkways. Impacts resulting from the new amphitheater construction would be reduced by restoring the former site to its historic condition resulting in no net loss of historic landscape due to the action.

Expansion of Administrative and Maintenance Facilities: Enlarging the headquarters and maintenance area would cause the removal of some tree cover near back road in the general area of the existing facility. Some grading would occur as the topography of the site is slightly sloping. While actual design alternatives and construction specifications are beyond the scope of this document, it is estimated that construction activity could impact approximately 1 acre of mixed pine and hardwood woodland in the park services zone.

The immediate impacts associated with construction are: disturbed earth, dust, noise above the ambient, and disarray. These are short-term impacts and would disappear at the conclusion of construction. Soil runoff to adjacent areas would be reduced by interception of surface water flowing over exposed earth with filter fabric barriers or other appropriate techniques. Regularly sprinkling vehicle

circulation routes with water would reduce dust. Regular pick up and disposal of litter and construction debris would reduce the litter problems. Remaining for the long term would be additional structures, paved surfaces, and graveled surfaces.

Cumulative impacts: The construction of an off site visitor center may cause the removal of trees at an undetermined location near the park. Because a potential site has not been identified, the number of trees potentially removed cannot be determined. It is assumed that any reduction would contribute to the overall trend of tree loss in the suburban landscape surrounding the park. Sensitive design and construction practices could reduce the impact of potential tree loss resulting from construction of a visitor center on a wooded site.

Impact of tree removal due to actions in this alternative could be reduced by acquiring through purchase or protective easement wooded property adjacent to the park. Preserving these properties in their existing condition would protect more of the suburban landscape from tree removal and contribute to overall scenic view and boundary protection at the park.

Park Operations and Administration

Factors in this category describe impacts to park operations and administration that could result from implementing the Sandburg Center Alternative.

Factor: Minimizes maintenance and administrative responsibilities.

Assessment: Minor – results of implementing the alternative do not satisfy conditions described in the high criteria for the factor but clearly exceed minimum criteria and fall well short of resource impairment. An assessment of minor is a neutral assessment acknowledging a less than optimum environmental condition that can be successfully managed to minimize its impact on visitor experience or resource protection goals.

The addition of new staff and facilities would increase administration and support services responsibilities. It is anticipated that one additional full time administrative assistant position would be needed to address the additional responsibilities.

The addition of new on-site and off-site facilities would increase maintenance work load. It is anticipated that one additional full time maintenance positions would be needed to address the additional responsibilities. Volunteer labor could help supplement maintenance personnel to a small degree.

Resources management responsibilities increase with the addition of new facilities, more visitors, and need to coordinate the NEPA and Section 106 compliance procedures associated with those proposed developments. It is anticipated

that two additional staff member will be required to fulfill the increased monitoring and compliance responsibilities. Volunteers would play an essential role by helping to measure and document natural and cultural resource conditions on an ongoing basis.

Additional museum and curatorial staff would be needed to provide support for interpretive and education programs and coordinate collection preservation and conservation treatments resulting from increased access to objects and manuscripts. It is anticipated that two additional full time positions would be required to address this need. Volunteer labor would continue to play a critical role in fulfilling the preservation responsibilities of the park.

Responsibility of the interpretive staff is significantly increased in this alternative because of its focus on creating dynamic and interactive visitor interpretation and education programs. It is anticipated that two additional full time positions would need to be added over time to address the increased work load and staff new facilities. Volunteers would continue to make a very significant contribution to the interpretive and educational program efforts of the park.

More visitors, facilities, and land would require the addition of a full-time law enforcement ranger to properly enforce park regulations.

Cumulative impacts: No significant negative cumulative impacts are associated with this factor.

Factor: Provides additional parking spaces.

Assessment: Exceptional – results of implementing the alternative clearly meet and exceed the high criteria. An assessment of exceptional is the most desirable assessment and indicates that implementing the alternative would most likely result in a highly desirable, unique, or beneficial environmental condition readily noticed by visitors.

Up to 20 extra parking spaces are provided at new visitor center in addition to those required for operation the facility. This additional parking capacity will be located within convenient walking distance of the park and be connected to the park entrance via a pedestrian pathway. Up to 20 additional parking spaces are created by restriping and expanding the visitor parking area in the Visitor Services Zone. Up to 10 additional spaces are created in the volunteer parking area on the back drive.

Cumulative impacts: Increased parking availability in this alternative may help reduce traffic congestion near the Park and Playhouse as some traffic volume would presumably be diverted to the off site location. Depending on the location of the new facility, potential exists for a joint parking arrangement with the Flat Rock Playhouse, or the Village of

Flat Rock that could help resolve the community wide parking shortage.

Factor: Enhances employee, volunteer, and visitor health and safety.

Assessment: Exceptional – results of implementing the alternative clearly meet and exceed the conditions described in the high criteria. An assessment of exceptional is the most desirable assessment and indicates that implementing the alternative would most likely result in a highly desirable, unique, or beneficial environmental condition readily noticed by visitors.

The overall park environment is safe and healthy for employees, volunteers, and visitors. The implementation of this alternative is not expected to result in the development of unsafe or unhealthy conditions over time.

Vehicle and pedestrian interaction in the visitor services zone would be enhanced by improved circulation patterns associated with the parking area expansion.

A regular two way flow of pedestrians and vehicles moves simultaneously between the headquarters and maintenance buildings and the volunteer parking area for most of the day. Low vehicle speeds, safety training, and observant employees reduce the potential for accidents.

Cumulative impacts: No significant negative cumulative impacts are associated with this factor.

Factor: Enhances energy conservation or reduces energy consumption.

Assessment: Moderate – an assessment of moderate is a positive assessment indicating that implementing the alternative would result in conditions which generally satisfy the high criteria for the factor, but do so in a way that would not be noticed by most visitors.

Additional on site and off site facilities and program activities would cause energy consumption to increase. Energy use may be reduced to a certain degree by using energy saving technologies when designing and constructing the off site visitor center .

Potential energy conservation may result from improvements to parking and circulation in the visitor services zone that reduce traffic congestion at the park entrance. Improvements in the transportation system may include some form of public transportation service possible provided through cooperation with local governments, private businesses, or support groups.

Cumulative impacts: No significant negative cumulative impacts are associated with this factor.

Quality of Life and the Socioeconomic Environment

Factors in this category describe impacts to quality of life and socioeconomic environments that could result from implementing the Sandburg Center alternative.

Factor: Provides additional opportunities for walking.

Assessment: Moderate – an assessment of moderate is a positive assessment indicating that implementing the alternative would result in conditions which generally satisfy the high criteria for the factor, but do so in a way that would not be noticed by most visitors.

The construction of additional walking trails would occur in the visitor services zone. Additional trail side amenities are provided in the visitor service zone. A pedestrian connection is provided between the off site visitor center and the park entrance. Connection to the greenway system occurs at the park entrance.

The NPS would create opportunities for a woodland walking experience on the 110 undeveloped acres between Big Glassy and Little River road should the property be purchased.

Cumulative impacts: Additional walking trails in the visitor services zone, on land acquired in a boundary expansion, and in conjunction with local community efforts to expand the greenway system help provide more walking opportunities for both local residents and park visitors.

Factor: Provides incentives for partnering with local governments, community groups, and individual citizens.

Assessment: Moderate – an assessment of moderate is a positive assessment indicating that implementing the alternative would result in conditions which generally satisfy the high criteria for the factor, but do so in a way that would not be noticed by most visitors.

Park management remains engaged, dedicated, and a willing member of the local community. It cooperates constructively on issues of mutual interest and concern and works to strengthen its traditionally close relationship with friends support groups, volunteers, and local government officials. Park management recognizes the high potential for beneficial partnering relationships but does not rely solely on those relationships to accomplish management objectives.

Cumulative impacts: No significant negative cumulative impacts are associated with this factor.

Factors: Potential economic benefit to community.

Assessment: Moderate – an assessment of moderate is a positive assessment indicating that implementing the alternative would result in conditions which generally satisfy

the high criteria for the factor, but do so in a way that would not be noticed by most visitors.

A Sandburg visitor center would attract visitors from a worldwide audience. Visitors who come to the area to take advantage of new opportunities at the park are potential visitors to other regional tourism locations. It is assumed that length of stay per visitor would increase as the number of programs and educational opportunities at the park and visitor center grows. Centrally located visitor center, parking, and pedestrian walkways could encourage visitors to extend their stay in the local area to take advantage of multiple park and private sector tourism and entertainment opportunities. Overnight stays in the local area could increase in conjunction with the increase in total visitors and length of stay. Additional goods and services would be purchased from local businesses to support increased program, maintenance, and administrative activities at the park.

Construction activity associated with the alternative would provide a temporary boost to the local and regional economy. Approximately 9 permanent and part time employment opportunities could be created over time.

Potentially removes up to 115 acres from Henderson County property tax roles over time. Impact of lost property tax revenue to Henderson County may be reduced through the Federal Payment in Lieu of Taxes (PILOT) program which would reimburse the county for lost property tax revenue for a period of five years, through sales tax revenues generated by the purchase of additional goods and services from local businesses by visitors, and park purchases of construction and design services for new park infrastructure.

Cumulative impacts: No significant negative cumulative impacts are associated with this factor.

Summary of adverse effects that cannot be avoided

These are impacts that cannot be fully mitigated or avoided. Implementing the Sandburg Center alternative would cause some tree removal and ground disturbance associated with the addition of visitor service infrastructure in the visitor services zone and at an undetermined off site location. While sensitive design and construction practices and the protection of undeveloped lands resulting from a boundary expansion would reduce many of these adverse impacts, some contribution to the overall trend of higher development densities in the surrounding community is expected.

Sensitive design and construction practices can also reduce the visual impact of the new visitor service infrastructure near Front Lake, however, complete screening of these elements is not possible and some non-historic elements would be visible from the front porch of the main house, particularly in the winter when deciduous trees have lost their foliage.

Summary of irreversible or irretrievable commitments of resources

Irreversible commitments are those that cannot be reversed, except perhaps in the extreme long term. Irretrievable commitments are those that are lost for a period of time.

Irreversible commitments: Historic objects can tolerate only a finite exposure to heat, humidity, and light before they must be returned to the museum preservation facility for permanent storage or major conservation treatment. In the Sandburg Center alternative, exposure of historic artifacts and manuscripts to light, heat, and humidity would continue (particularly in the main house), ultimately resulting in their removal to the museum preservation facility for permanent storage. This alternative significantly reduces exposures by providing several locations where sensitive resources can be accessed by visitors and researchers in a climate controlled environment.

Irretrievable commitments: New construction in the visitor services zone will result in additional walkways, paved parking areas, and other permanent visitor service infrastructure. These impacts are considered irreversible in the sense that other potential use of these resources would be lost for a significant period of time. The loss is, however, somewhat reduced by the fact that the majority of the area that could be developed is a reclaimed road bed that the Sandburgs received in the late 1950's through a land trade when the road alignment of Little River Road was changed.

Relocating the amphitheater will result in vegetation removal, additional walkways, seating and stage construction, and other permanent visitor service infrastructure. These impacts are considered irreversible in the sense that other potential uses of these resources (including historic preservation) would be lost for a significant period of time. The loss would be reduced by restoring the old amphitheater site near the main house to period of significance condition.

Summary of the relationship between short-term uses of the environment and maintenance and enhancement of long-term productivity

For the purposes of this discussion, short term is defined as the time span for which this General Management Plan is expected to be effective (generally assumed to be 15-20 years) and long term is defined as a period beyond that time.

In the Sandburg Center alternative, the short term benefits of providing improved visitor services, improved program capability, and greater public access to information in the museum collection are facilitated by development of a small area and the rehabilitation of one or more historic building interiors.

Assessment of Potential Environmental Impacts Associated with the Paths of Discovery Alternative.

Cultural Resource Management

Factors in this category describe impacts to cultural resources that could occur as a result of implementing the Paths of Discovery Alternative.

Factor: Preservation of Historic Building Interiors

Assessment: Moderate – an assessment of moderate is a positive assessment indicating that implementing the alternative would result in conditions which generally satisfy the high criteria for the factor, but do so in a way that would not be noticed by most visitors.

Park management would preserve and restore as many historic building interiors to the period of significance as practical. Preserved or restored historic building interiors would be incorporated into the interpretive program of the park. Historic structures would not remain vacant or unused. Additional historic building interiors would not be rehabilitated for administrative, storage, or maintenance use. Over time, most administrative and maintenance operations currently in historic structures would be relocated to the park services zone, visitor services zone, or a new off site visitor center. The visitor contact area would remain in the main house basement and use of the Farm Manger's Residence would continue as a ranger residence.

Exteriors of all historic structures would be preserved or restored to the period of significance over time.

Cumulative Impact: No significant negative cumulative impacts have been identified for this alternative.

Factor: Introduction of non-period elements to the historic landscape

Assessment: Negligible – results of implementing the alternative are notably less than the preferred condition but still exceed minimum criteria for the factor and do not cause resource impairment. An assessment of negligible generally indicates some visitors may perceive an environmental condition associated with implementation of the alternative as a distraction, inconvenience, or unfulfilled desire.

Non-historic elements would be evident in an expanded visitor services zone. Opportunities for visitors to learn about the Sandburg story would be placed at appropriate locations along pedestrian pathways. Interpretive waysides and other non-historic elements would be minimized in the historic discovery zone.

The following non-historic elements are proposed or present in the historic landscape for this alternative:

- A non-historic walking trail extending from the visitor parking area to the back gate would be constructed between the historic fence line and shoulder of Little River Road. The trail would be most visible from Little River Road and the barn area.
- A non-historic walking trail would be constructed parallel to back drive connecting the new trail on Little River Road to the barn area. While the trail would be mostly screened from historic views of the pastures and barn area, its implementation would likely require the construction of several small footbridges or boardwalks.
- Waysides or other interpretive devices would be visible near trails in the visitor services and historic interaction zones at a higher frequency than the other alternatives. The exact number and location for these elements would be determined in a comprehensive interpretive master plan, cultural landscape report, trail management plan, or development concept plan. The visual impact of waysides could be reduced to some extent by the use of new audio technologies and designs that minimize the visual impact of wayside exhibits.
- The existing trailer comfort station near the main house would be replaced by a sensitively designed new facility of approximately the same size at the same location. Design alternatives for the new facility would be developed and coordinated with the State Historic Preservation Officer as required by NPS policy.
- The parking and public entrance area on Little River Road would be redesigned and enlarged to accommodate additional vehicles. Design alternatives for these improvements would be proposed in a development concept plan and coordinated with the State Historic Preservation Officer and the public as required by NPS policy.
- Visitor service infrastructure would be enhanced in the visitor services zone by modifying the visitor information and comfort station to provide additional interpretive and information capabilities. The non-historic walking trails in the visitor services zone would remain and additional trails would be added. A small area for picnic tables could be included in the design if desired. Design alternatives for these improvements would be developed in a development concept plan and coordinated with the State Historic Preservation Officer and the public as required by NPS policy.
- A shuttle vehicle would continue to transport visitors who need assistance up the steep slope from the parking area

to the main house area. The visual impacts of the transport vehicle would be reduced by replacing it with a less visually and audibly intrusive vehicle.

- The existing amphitheater would be replaced by a new facility constructed at one of the three approved sites identified in the alternative. The landscape of the old amphitheater would be restored to period conditions.
- The historic landscape of the park would be maintained to represent the period of significance as directed in the zone descriptions of this GMP. Historic landscape management treatments and implementation procedures within specific zones would be recommended and documented in a cultural landscape report or development concept plan.
- Trail side amenities such as benches and trash receptacles in the historic interaction zone would be evident but not in such quantity as to compromise the historic ambiance of the site. Visible interpretive media, trail side benches, trash cans and other nonessential visitor services infrastructure would be removed from the historic discovery zone.
- The maintenance facility, museum preservation center, and headquarters building would be enlarged as needed within the park services zone. All administrative and maintenance use of historic structures in the historic interaction and historic discovery zone would be moved to the park services or visitor services zone over time with the exception of the visitor contact station in the main house and the ranger residence in the farm manager's residence.
- Volunteers parking area would be expanded by approximately 1000 SF and redesigned to improve traffic flow and accessibility.

Cumulative impacts: The proposed construction of a walking trail along Little River Road, off site visitor center and parking area could combine with other local developments to further suburbanize the local area. The NPS can reduce impacts associated with the proposed changes by incorporating sensitive design and construction techniques but some contribution towards the overall trend of suburbanization will occur. Cumulative impacts to the local landscape could be reduced by acquiring and protecting additional undeveloped acreage around the park for view and boundary protection.

Factor: Opportunities for solitude or a contemplative experience.

Assessment: Minor – results of implementing the alternative do not satisfy conditions described in the high criteria for the factor but clearly exceed minimum criteria and fall well short of resource impairment. An assessment of minor is a neutral

assessment acknowledging a less than optimum environmental condition that can be successfully managed to minimize its impact on visitor experience or resource protection goals.

Creating convenient access to an improved pedestrian trail system would likely increase the number of people who come to the park for a walking experience. During periods of moderate to high visitation, the addition of trail amenities may encourage more use of the woodland trail system and limit opportunities for solitude on the major woodland trails and at Big Glassy summit as well.

The potential for historic views to include people, trails, and interpretive material is increased. These types of non-historic elements would be most visible looking towards the barn area from Little River Road and looking over the pastures from the barn area.

Cumulative impacts: As population increases and the character of the surrounding community becomes more suburban, fewer opportunities for solitude and contemplative experiences may exist outside park boundaries. A reduction in opportunity for solitude and contemplation at the park would contribute to this trend. The NPS can reduce cumulative impacts on solitude by protecting the 110 undeveloped acres between Big Glassy and Little River road and providing opportunities for a woodland walking experience there.

Interpretation and Museum Operations

Factors in this category describe impacts related to interpretation, education, and museum operations that could occur as a result of implementing the Paths of Discovery alternative.

Factor: Provides high quality facilities capable of supporting a variety of interpretation/education/museum programs.

Assessment: Moderate – an assessment of moderate is a positive assessment indicating that implementing the alternative would result in conditions which generally satisfy the high criteria for the factor, but do so in a way that would not be noticed by most visitors.

Facilities for interpretation, education, and museum programs could be provided through partnering opportunities with local and regional organizations or at an off site visitor center. An expansion or renovation of the existing visitor information station in the visitor services zone provides some additional opportunity on site. New on site amphitheater facility provides high quality venue for outdoor interpretive programs. On site educational opportunities are lower than Sandburg Center Alternative because of fewer on site venues in historic structures.

Access to park resources for research is improved by providing an additional safe and appropriate intellectual access point for scholars, writers, and artists at the off site visitor center.

This alternative makes it more feasible to borrow and exhibit Sandburg related objects or archives from other collections at the park.

Cumulative impacts:

Interpretation: No significant negative cumulative impacts on interpretation are associated with this factor.

Education: No significant negative cumulative impacts on education are associated with this factor.

Museum: Historic objects can tolerate only a finite amount of exposure to heat, humidity, and light before they must be brought back to the museum preservation facility for permanent storage or major conservation treatment. Objects would reach their maximum exposure levels at a slower rate if they are exhibited in the climate controlled environments provided at the proposed new facilities.

Factor: Provides visitors with opportunities for personal contact with NPS personnel (staff or trained volunteers).

Assessment: Moderate – an assessment of moderate is a positive assessment indicating that implementing the alternative would result in conditions which generally satisfy the high criteria for the factor, but do so in a way that would not be noticed by most visitors.

The self-discovery theme of this concept encourages people to interact with park resources on their own terms as they walk through the park. Visitors are exposed to the Sandburg story in ways that encourage them to seek out NPS personnel for additional information if they desire. High quality personal interpretation exists on site at the house and barn areas and off site at the visitor center. Additional contact points are provided at the visitor information station in the visitor services zone and at the bookstore in the basement of the main house.

School based education programs continue to provide personal contact opportunities on a local and regional scale.

Cumulative impacts: No significant negative cumulative impacts are associated with this factor.

Factor: Provides opportunities for public access to museum collection and related information.

Assessment: Moderate – an assessment of moderate is a positive assessment indicating that implementing the alternative would result in conditions which generally satisfy the high criteria for the factor, but do so in a way that would not be noticed by most visitors.

The number of public intellectual access points for information contained in the museum collection is greatly increased by the addition of a new off site visitor center, renovated visitor information station, and the creation of a high quality and user friendly resource database. Data base information could be accessed and used by visitors both on and off site using the internet or other high tech media formats. Although the number of on-site access points and interpretive program activity is lower than the Sandburg Center alternative, the Paths of Discovery alternative provides better access to information than existing conditions or the Connemara Lifestyle alternative

New visitor center would make it possible to exhibit many of the objects and manuscripts currently in storage at the museum preservation facility. This facility would also make it possible to borrow and interpret Sandburg related resources from other institutions' collections in a safe and protected environment.

Cumulative impacts: Accumulated exposures to humidity, light, and heat would be reduced and the time those objects and manuscripts can be exhibited would be substantially increased over the No Action alternative.

No significant negative cumulative impacts to resources outside park boundaries have been identified for this factor.

Criteria: More opportunity is preferred. More intellectual access points are preferred. Minimum standard: Any proposed implementation strategy would comply with DO-28, NPS Museum Handbook, and all other applicable NPS museum policy guidelines.

Factor: Promotes continued learning and research of Carl Sandburg.

Assessment: Moderate – an assessment of moderate is a positive assessment indicating that implementing the alternative would result in conditions which generally satisfy the high criteria for the factor, but do so in a way that would not be noticed by most visitors.

The new visitor center provides additional opportunity for interpretation, education, and research programs. Accommodating large groups or individuals is possible. Outside research can be supported and is encouraged.

Visitors who use the park primarily for a walking experience are encouraged to learn more about Sandburg through exposure to interpretive waysides and other trail side interpretive elements.

Cumulative impacts: No significant negative cumulative impacts to resources outside the park have been identified for this factor.

Factor: Provides opportunity to link park themes with local, state, national, and international education programs.

Assessment: Moderate – an assessment of moderate is a positive assessment indicating that implementing the alternative would result in conditions which generally satisfy the high criteria for the factor, but do so in a way that would not be noticed by most visitors.

Park education programs in this alternative are conducted both on site and as an outreach program in local schools. Teacher workshops are conducted both on and off site and focus on developing a relationship between park and local/regional education resources. Curriculum materials are developed in strong partnership with area and regional educators. Teachers prepare materials for use by other teachers with direction and assistance provided by park staff.

Cumulative impacts: No significant negative cumulative impacts to resources outside the park have been identified for this factor.

Natural Resource Management

The following factor describes the potential changes to vegetation that could result from implementing the Paths of Discovery alternative.

Factor: Potential to preserve existing vegetation

Assessment: Negligible – results of implementing the alternative are notably less than the preferred condition but still exceed minimum criteria for the factor and do not cause resource impairment. An assessment of negligible generally indicates some visitors may perceive an environmental condition associated with implementation of the alternative as a distraction, inconvenience, or unfulfilled desire.

New construction activity is the primary cause of vegetation removal and ground disturbance in the alternative. Minor vegetation removal associated with normal maintenance activities would occur. Use of trails will increase as more visitors come to the park and additional trails are added. While the future physical impact of visitors to vegetation near trails is difficult to quantify, it is logical to assume that impacts will increase in proportion to the rise in people using them. Impacts to sensitive vegetation associated with trail system use would be reduced by tightly controlling access to granite domes and increasing maintenance and enforcement activities in heavily affected or sensitive areas.

Four significant developments are proposed within the boundaries of the park that could cause ground disturbance and the removal of vegetation.

Parking area expansion: It is expected that enlarging the visitor parking area would cause the removal of some tree cover in the vicinity of Front Lake. Grading of the landscape is also

expected as the topography of the site is moderately sloping. While actual design alternatives and construction specifications are beyond the scope of this document, it is estimated that construction activity could impact approximately 1.25 to 1.5 acres of mixed pine and hardwood woodland in the visitor services zone.

Approximately 500 to 1000 SF of mixed pine and hardwood forest would be removed to enlarge the volunteer parking area.

The proposed parking sites are adjacent to the existing parking lot behind Front Lake and off the back drive service drive. The immediate impacts associated with construction are: disturbed earth, dust, noise above the ambient, and disarray. These are short-term impacts that would be gone at the conclusion of the construction phase and may be reduced through construction site Best Management Practices. Soil runoff would be reduced by interception of surface water flowing over exposed earth with filter fabric barriers or other appropriate techniques. Regularly sprinkling vehicle circulation routes with water would reduce dust. Regular pick up and disposal of litter and construction debris would reduce the litter problems. Noise and disarray are short term impacts and would disappear at the conclusion of the activity. Remaining for the long term would be additional parking areas and walkways.

Amphitheater relocation: It is expected that relocating the existing amphitheater would cause the removal of tree cover. Grading of the landscape is also expected as the topography is slightly to moderately sloping at each location. While actual site design alternatives and construction specifications are beyond the scope of this document, it is estimated that construction activity could impact approximately 5000 SF of mixed pine and hardwood woodland or pasture in the historic interaction zone. The immediate impacts associated with construction are: disturbed earth, dust, noise above the ambient, and disarray. These are short-term impacts that would be gone at the conclusion of the construction phase and may be reduced through construction site Best Management Practices. Soil runoff to Front Lake, Side Lake, and Memminger Creek would be reduced by interception of surface water flowing over exposed earth with filter fabric barriers or other appropriate techniques. Regularly sprinkling vehicle circulation routes with water would reduce dust. Regular pick up and disposal of litter and construction debris would reduce the litter problems. Noise and disarray are short term impacts and would disappear at the conclusion of the activity. Remaining for the long term would be an amphitheater and associated walkways.

Expansion of Administrative and Maintenance Facilities: It is expected that enlarging the headquarters and maintenance area would cause the removal of some tree cover near back road in the general area of the existing facility. Some grading

would be expected as the topography of the site is slightly sloping. While actual design alternatives and construction specifications are beyond the scope of this document, it is estimated that construction activity could impact approximately 1 acre of mixed pine and hardwood woodland in the park services zone. The immediate impacts associated with construction are: disturbed earth, dust, noise above the ambient, and disarray. These are short-term impacts that would be gone at the conclusion of the construction phase and may be reduced through construction site Best Management Practices. Soil runoff to adjacent areas would be reduced by interception of surface water flowing over exposed earth with filter fabric barriers. Regularly sprinkling vehicle circulation routes with water would reduce dust. Regular pick up and disposal of litter and construction debris would reduce the litter problems. Noise and disarray are short term impacts and would disappear at the conclusion of the activity. Remaining for the long term would be additional structures, paved surfaces, and graveled surfaces.

Expansion of visitor services zone and construction of new interpretive trails: An approximately 3750' long interpretive trail connecting the visitor center parking area to the barn area would be constructed. A 2250' trail segment of the new trail from Little River Road to back gate would require substantial grading and the removal of some grassy vegetation between the historic fence line and the shoulder of the road. A 1500' trail segment running parallel to back drive would require selected tree removal, moderate grading, and the construction of several small wooden footbridges or boardwalks in the forested area between back gate and the barn area. Construction of the new pedestrian trails would occur in the visitor services zones shown in figure 2-h.

The immediate impacts associated with construction of the new interpretive trail segments are: disturbed earth, dust, noise above the ambient, increased traffic delays along Little River Road, and disarray. These are short-term impacts that would be gone at the conclusion of the construction phase and may be reduced through construction site Best Management Practices. Soil runoff to adjacent areas would be reduced by interception of surface water flowing over exposed earth with filter barriers or other appropriate techniques. Regularly sprinkling vehicle circulation routes with water would reduce dust. Regular pick up and disposal of litter and construction debris would reduce the litter problems. Noise and disarray are short term impacts and would disappear at the conclusion of the activity. Remaining for the long term would be paved and unpaved trail surfaces, interpretive waysides, benches, small footbridges, and boardwalks.

Cumulative impacts: Construction of new trails and a potential off site visitor center would cause the removal of some trees and grassy vegetation. It is assumed that any removal of

vegetation would contribute to the overall trend of vegetation loss in the suburban landscape surrounding the park. Sound design and construction practices could reduce the impact of potential vegetation loss resulting from these potential new developments.

Impact of tree removal due to actions in this alternative could be reduced by acquiring through purchase or protective easement wooded property adjacent to the park. Preserving these properties in their existing condition would protect more landscape from tree removal and contribute to overall scenic view and boundary protection at the park.

Criteria: Preservation of existing vegetation is preferred condition. Minimum standard: Any proposed implementation strategy would comply with DO-77 and all other applicable federal policy guidelines. Federal water quality and noise standards would not be violated as a result of associated construction activities.

Park Operations and Administration

Factors in this category describe impacts related to park operations and administration that could occur as a result of implementing the Paths of Discovery alternative.

Factor: Minimizes maintenance and administrative responsibilities.

Assessment: Minor – results of implementing the alternative do not satisfy conditions described in the high criteria for the factor but clearly exceed minimum criteria and fall well short of resource impairment. An assessment of minor is a neutral assessment acknowledging a less than optimum environmental condition that can be successfully managed to minimize its impact on visitor experience or resource protection goals.

The addition of new staff and facilities would increase administration and support services responsibilities. It is anticipated that one additional full time administrative assistant position would be needed to address the additional responsibilities.

Maintenance responsibilities increase due to the addition of additional interpretive trails and off site facilities. It is anticipated that one additional full time maintenance position would need to be added over time to address the increased work load. Volunteer labor could help supplement the maintenance function to a small degree.

Resources management responsibilities increase significantly with the addition of new facilities, new trails, more visitors, and need to coordinate the NEPA and Section 106 compliance procedures associated with those proposed developments. It is anticipated that one additional staff member will be required to fulfill the increased monitoring and compliance

responsibilities. Volunteers would play an essential role by helping to measure and document natural and cultural resource conditions on a regular basis.

The creation of additional intellectual access points at on site and off site locations and the aging of the museum collection would increase work load for museum and curatorial staff. It is anticipated that one additional full time position would be needed to address the increased work load. This alternative relies heavily on professional trained volunteer labor to fulfill the preservation responsibilities of the park.

Responsibility of the interpretive staff is increased by the addition of the visitor center and to coordinate an expanded volunteer and friends group. It is anticipated that one additional position will be needed to address the increased work load and staff new facilities. Volunteers would continue to make a very significant contribution to the interpretive and educational program efforts of the park.

More visitors, facilities, and land would require the addition of one full-time law enforcement ranger to properly enforce park regulations.

Cumulative impacts: No significant negative cumulative impacts are associated with this factor.

Factor: Provides additional parking spaces.

Assessment: Exceptional – results of implementing the alternative clearly meet and exceed the high criteria. An assessment of exceptional is the most desirable assessment and indicates that implementing the alternative would most likely result in a highly desirable, unique, or beneficial environmental condition readily noticed by visitors.

Up to 20 extra parking spaces are provided at new visitor center in addition to those required for operation of the facility. This additional parking capacity will be located within convenient walking distance of the park and be connected to the park entrance via a pedestrian pathway. Up to 20 additional parking spaces are created by restriping and expanding the visitor parking area in the Visitor Services Zone. Up to 10 additional spaces are created in the volunteer parking area off the back drive.

Cumulative impacts: Increased parking availability in this alternative may help reduce traffic congestion near the Park and Playhouse entrances as some traffic volume would presumably be diverted to the off site location. Depending on the location of the new facilities, potential exists for a joint parking arrangement with the Flat Rock Playhouse or Village of Flat Rock that could help resolve both the park and community wide parking shortage.

Factor: Enhances employee, volunteer, and visitor health and safety.

Assessment: Moderate – an assessment of moderate is a positive assessment indicating that implementing the alternative would result in conditions which generally satisfy the high criteria for the factor, but do so in a way that would not be noticed by most visitors.

The overall park environment is safe and healthy for employees, volunteers, and visitors. The implementation of this alternative is not expected to result in the development of unsafe or unhealthy conditions over time.

Vehicle and pedestrian interaction in the visitor services zone would be improved by increasing parking capacity in the visitor's parking area and providing additional off site parking. The addition of a pedestrian trail from the back gate to the barn area separates vehicle and pedestrian traffic along that route.

Pedestrian traffic along Little River Road is increased by the addition of the interpretive trail between the visitor parking area and back gate. Exposure of pedestrians to traffic on Little River Road can be reduced by good design and construction of the trail, improved traffic signage and a reduction of travel speed on Little River Road.

Cumulative impacts: No significant negative cumulative impacts are associated with this factor.

Factor: Enhances energy conservation or reduces energy consumption.

Assessment: Minor – results of implementing the alternative do not satisfy conditions described in the high criteria for the factor but clearly exceed minimum criteria and fall well short of resource impairment. An assessment of minor is a neutral assessment acknowledging a less than optimum environmental condition that can be successfully managed to minimize its impact on visitor experience or resource protection goals.

Additional off site facility would increase energy consumption. Energy use may be reduced to a certain degree by using energy saving technologies when designing and constructing the off site facility.

The Little River Road interpretive trail enhances community greenway system and encourages more people to leave their vehicles at a remote parking area and access the park by bicycle or foot.

Potential energy conservation may result from improvements to parking and circulation in the visitor services zone that reduce traffic congestion at the park entrance. Improvements in the transportation system may include some form of public transportation service possibly provided through cooperation with local governments, private businesses, or support groups.

Cumulative impacts: No significant negative cumulative impacts are associated with this factor.

Quality of Life and Socioeconomic Environment

Factors in this category describe impacts to the quality of life and socioeconomic environment that could occur as a result of implementing the Paths of Discovery alternative.

Factor: Provides additional opportunities for walking.

Assessment: Exceptional – results of implementing the alternative clearly meet and exceed the high criteria. An assessment of exceptional is the most desirable assessment and indicates that implementing the alternative would most likely result in a highly desirable, unique, or beneficial environmental condition readily noticed by visitors.

Construction of the 3/4 mile interpretive connector trail would create a looped trail linking both ends of the existing trail system. Walking opportunities would be closely integrated into the community greenway system. An additional pedestrian access point is created at the back gate. A pedestrian connection is provided between the visitor center, its integrated parking area, and the two park entrances.

Additional trail side amenities would be provided in the visitor service zone.

The NPS would create opportunities for a woodland walking experience on the 110 undeveloped acres between Big Glassy and Little River road should the property be purchased.

Cumulative impacts: Additional walking trails in the visitor services zone, on land acquired in a boundary expansion, and in conjunction with local community efforts to expand the greenway system help provide more walking opportunities for both local residents and park visitors.

Factor: Provides incentives for partnering with local governments, community groups, and individual citizens.

Assessment: Exceptional – results of implementing the alternative clearly meet and exceed the high criteria. An assessment of exceptional is the most desirable assessment and indicates that implementing the alternative would most likely result in a highly desirable, unique, or beneficial environmental condition readily noticed by visitors.

Park management recognizes that many community goals and park goals are the same, is proactive in forming partnerships to address issues of mutual interest, and works to strengthen its traditionally close relationship with friends support groups, volunteers, and local government officials. The Paths of Discovery alternative relies heavily on successful implementation of partnering opportunities to accomplish common goals.

Cumulative impacts: No significant negative cumulative impacts are associated with this factor.

Factors: Potential economic benefit to community.

Assessment: Moderate – an assessment of moderate is a positive assessment indicating that implementing the alternative would result in conditions which generally satisfy the high criteria for the factor, but do so in a way that would not be noticed by most visitors.

Visitors who come to the area to take advantage of new walking and interpretive opportunities at the park are potential visitors to other regional tourism locations. Centrally located visitor center, parking, and pedestrian walkways could encourage visitors to extend their stay in the local area to take advantage of multiple park and private sector tourism and entertainment opportunities. Overnight stays could increase in conjunction with the increase in total visitors and length of stay over time. Additional goods and services would be purchased from local businesses to support increased program, maintenance, and administrative activities at the park.

Construction activity associated with the alternative would provide a temporary boost to the local and regional economy. Approximately six permanent and part time employment opportunities could be created over time.

Potentially removes up to 115 acres from Henderson County property tax roles over time. Impact of lost property tax revenue to Henderson County may be reduced through the Federal Payment in Lieu of Taxes (PILOT) program which would reimburse the county for lost property tax revenue for a period of five years, through sales tax revenues generated by the purchase of additional goods and services from local businesses by visitors, and park purchases of construction and design services for new park infrastructure.

Cumulative impacts: No significant negative cumulative impacts are associated with this factor.

Summary of adverse effects that cannot be avoided

These are impacts that cannot be fully mitigated or avoided. Implementing the Paths of Discovery alternative would cause some tree removal and ground disturbance associated with the addition of visitor service infrastructure in the visitor services zone near Front Lake, between the historic fence line and the shoulder of Little River Road, in the wooded area parallel to Back Drive, and at an undetermined location for a visitor center.

While sound design and construction practices and the protection of undeveloped lands resulting from a boundary expansion would reduce many of these adverse impacts, some

contribution to the overall trend of higher development densities in the surrounding community may be expected.

Sound design and construction practices can also reduce the visual impact of the new visitor service infrastructure near Front Lake, however, complete screening of these elements is not possible and some non-historic elements would be visible from the front porch of the main house, particularly in the winter when deciduous trees have lost their foliage.

The construction of a connector trail between the historic fence line and the shoulder of Little River Road would be visible from several important view points in the park, from the road itself, and from the private residences on the opposite side of Little River Road.

Summary of irreversible or irretrievable commitments of resources

Irreversible commitments are those that cannot be reversed, except perhaps in the extreme long term. Irretrievable commitments are those that are lost for a period of time.

Irreversible commitments: Historic objects can tolerate only a finite amount of exposure to heat, humidity, and light before they must be returned to the museum preservation facility for permanent storage or major conservation treatment. In the Paths of Discovery alternative, exposure of historic artifacts and manuscripts to light, heat, and humidity would continue (particularly in the main house), ultimately resulting in their removal to the museum preservation facility for permanent storage. However, this alternative significantly reduces exposures by providing alternative locations where sensitive resources can be seen in a climate controlled environment thus increasing the overall length of time historic objects would be accessible to the public.

Irretrievable commitments: Construction of a connector trail along Little River Road and Back Drive is considered irreversible in the sense that other potential uses (including historic preservation) of these resources would be lost for a significant period of time.

New construction in the visitor services zone will result in additional walkways, paved parking areas, and other permanent visitor service infrastructure. These impacts are considered irreversible in the sense that other potential use of these resources would be lost for a significant period of time. The loss is, however, somewhat reduced by the fact that the majority of the area that could be developed is a reclaimed road bed that the Sandburgs received in the late 1950's through a land trade when the road alignment of Little River Road was changed.

Relocating the amphitheater will result in vegetation removal, additional walkways, seating and stage construction, and other permanent visitor service infrastructure. These impacts are

considered irreversible in the sense that other potential uses of these resources would be lost for a significant period of time. The loss is potentially reduced by restoring the old amphitheater site to its period of significance condition.

Summary of the relationship between short-term uses of the environment and maintenance and enhancement of long-term productivity

For the purposes of this discussion, short term is defined as the time span for which this General Management Plan is expected to be effective (generally assumed to be 15-20 years) and long term is defined as a period beyond that time.

In the Paths of Discovery alternative, the short term benefits of providing improved visitor services, an expanded trail system, improved program capability, and greater public access to information in the museum collection are facilitated by the development of a small but very visible portion of the historic landscape.

Assessment of Potential Environmental Impacts Associated With the Connemara Lifestyle Alternative.

Cultural Resource Management

Factors in this category describe impacts to cultural resources that could result from implementing the Connemara Lifestyle alternative.

Factor: Preservation of Historic Building Interiors

Assessment: Moderate – an assessment of moderate is a positive assessment indicating that implementing the alternative would result in conditions which generally satisfy the high criteria for the factor, but do so in a way that would not be noticed by most visitors.

As many historic structures as possible would be restored and furnished to represent the period of significance. No additional historic structures would be rehabilitated for park use. The farm mangers house, garage, and main house basement would continue to be used for administrative, educational, or interpretive functions.

Cumulative Impact: No significant negative cumulative impacts are associated with this factor.

Factor: Introduction of non-period elements to the historic landscape

Assessment: Moderate – an assessment of moderate is a positive assessment indicating that implementing the alternative would result in conditions which generally satisfy

the high criteria for the factor, but do so in a way that would not be noticed by most visitors.

Non-historic elements would be evident in an expanded visitor services zone but visitors would experience a landscape that closely represents the historic scene as it existed during the Sandburg residency.

Non-historic elements introduced into the historic interaction zone would be minimized. Visitors would be able to experience a historic landscape as true to the period of significance as practical. Visible interpretive media, trail side benches, trash cans and other nonessential visitor services infrastructure would be removed from the historic discovery zone.

The following non-historic elements are proposed or present in the historic landscape for this alternative:

- The historic landscape of the park would be maintained as close to the period of significance as practical. Site specific historic landscape management and implementation procedures within specific zones would be recommended and documented in a cultural landscape report or development concept plan.
- The existing trailer comfort station near the main house would be replaced by a sensitively designed new facility of approximately the same size at the same location. Design alternatives for the new facility would be developed and coordinated with the State Historic Preservation Officer as required by NPS policy.
- The parking and public entrance area on Little River Road would be redesigned and enlarged to accommodate additional vehicles. Design alternatives for these improvements would be proposed in a development concept plan and coordinated with the State Historic Preservation Officer and the public as required by NPS policy.
- Visitor service infrastructure would be enhanced in the visitor services zone by modifying the visitor information and comfort station to provide additional interpretive and information capabilities. The non-historic walking trails in the visitor services zone would remain and additional trails could be added. A small area for picnic tables could be included in the design if desired. Design of proposed improvements would be detailed in a development concept plan and coordinated with the State Historic Preservation Officer and the public as required by NPS policy.
- A shuttle vehicle would continue to transport visitors who need assistance up the steep slope from the parking area to the main house area. The visual impacts of the

transport vehicle would be reduced by replacing it with a less visually and audibly intrusive vehicle.

- The existing amphitheater would be replaced by a new facility constructed at one of the three approved sites identified in the alternative.
- The maintenance facility, museum preservation facility, and headquarters building could be enlarged as needed within the park services zone.
- Volunteers parking area would not be enlarged but could be redesigned to improve traffic flow and accessibility.

Cumulative impacts: Suburban growth pressures would result in new developments, some of which would be visible to the historic landscape within the park.

Factor: Opportunities for solitude or a contemplative experience.

Assessment: Exceptional – results of implementing the alternative clearly meet and exceed the high criteria. An assessment of exceptional is the most desirable assessment and indicates that implementing the alternative would most likely result in a highly desirable, unique, or beneficial environmental condition readily noticed by visitors.

Opportunities for visitors to experience solitude or have a contemplative experience continue to be common along the wooded trails, at Big Glassy overlook, and in the pasture areas year around except during the highest of peak visitation days. Such experiences occur in the main house and barn areas of the park during periods of low visitation.

During periods of moderate to high visitation, lack of trail amenities may discourage some casual use of the Big Glassy Trail and provide more opportunities for solitude along the trail and at the summit than the other alternatives.

Cumulative impacts: As the character of the surrounding community becomes more suburban, fewer opportunities for solitude and contemplative experiences would exist outside park boundaries. The local greenway may reduce this impact to a certain degree if it is funded and constructed to completion.

Interpretation and Museum Operations

Factors in this category describe impacts related to interpretation, education, and museum operations that could result from implementing the Connemara Lifestyle Alternative.

Factor: Provides high quality facilities capable of supporting a variety of interpretation/education/museum programs.

Assessment: Negligible – results of implementing the alternative are notably less than the preferred condition but still exceed minimum criteria for the factor and do not cause resource impairment. An assessment of negligible generally indicates

some visitors may perceive an environmental condition associated with implementation of the alternative as a distraction, inconvenience, or unfulfilled desire.

Interpretation: The new amphitheater, main house, and barn area continue to serve as venues for tour and performance-type interpretive experiences. Opportunities for growth of dynamic and interactive interpretive programs is limited by size and location conflicts at both the amphitheater and barn areas. The house garage remains the only facility capable of accommodating an indoor lecture-type interpretive program. Because indoor program space is limited, scheduling conflicts occur during periods of inclement weather. Informal learning experiences continue to occur at the horse barn and amphitheater, weather permitting. Outdoor educational experiences are available. Opportunities for additional dynamic and interactive education programs is limited in this alternative.

Museum: Original historic objects associated with the Sandburgs can be viewed at the main house (household and professional objects), woodshed (farm equipment), barn garage (farm vehicles), and shaving shed (farm equipment) and other structures as they are restored. Historic objects continue to degrade because of damaging changes in humidity, temperature, and light at all of these locations. New restorations would be furnished with reproduction or period objects in instances where climate control was not practical.

Museum preservation facility provides climate controlled storage or conservation treatment for objects but is not large enough or otherwise suitable for public viewing and interpretation of historic objects. Many historic objects remain inaccessible to the general public while they are in the museum preservation facility because no suitable protected environment exists where they can be used as a resource for research or interpretation purposes.

Cumulative impacts:

Interpretation: No significant negative cumulative impacts on interpretation are associated with this factor.

Education: No significant negative cumulative impacts on education are associated with this factor.

Museum: Historic objects can tolerate only a finite amount of exposure to heat, humidity, and light before they must be brought back to the museum preservation facility for permanent storage or major conservation treatment. As historic objects in this alternative would continue to be exhibited in an uncontrolled climatic environment, degradation would accumulate more quickly than if they were exhibited in a controlled climatic environment. Objects that have reached their maximum exposure levels would need to be removed from exhibit status if park managers wish to avoid permanent resource damage.

Factor: Provides visitors with opportunities for personal contact with NPS personnel (staff or trained volunteers).

Assessment: Moderate – an assessment of moderate is a positive assessment indicating that implementing the alternative would result in conditions which generally satisfy the high criteria for the factor, but do so in a way that would not be noticed by most visitors.

The park continues to provide high quality on-site personal interpretation to visitors on a regular basis at the main house and barn area locations. School-based education programs are provided for students in local schools.

Cumulative impacts: No significant negative cumulative impacts are associated with this factor.

Factor: Provides opportunities for public access to museum collection and related information.

Assessment: Minor – results of implementing the alternative do not satisfy conditions described in the high criteria for the factor but clearly exceed minimum criteria and fall well short of resource impairment. An assessment of minor is a neutral assessment acknowledging a less than optimum environmental condition that can be successfully managed to minimize its impact on visitor experience or resource protection goals.

The potential number of public intellectual access points is increased by creating a high quality and user friendly resource database. Database information could be accessed and used by visitors both on and off site using the internet or other high tech media formats.

Expansion of visitor information facility provides a small climate controlled area where visitors can view historic objects. Visitors may view historic objects at the main house, barn garage, woodshed, milk house, and shaving shed. Many of Carl Sandburg's personal possessions are exhibited at the main house and available for public access only by participating in the guided tour.

A significant number of historic objects and almost all of the historic archives are stored in the museum preservation facility and can be accessed only by appointment with the curatorial staff.

Cumulative impacts: Accumulated exposures to humidity, light, and heat would necessitate the removal of some objects and manuscripts to the museum preservation facility for permanent storage. As more objects are moved over time, public access to information in the museum collection would be reduced. Presumably, this impact could be partially reduced by replacing removed historic objects with reproduction or period objects.

No significant negative cumulative impacts to resources outside park boundaries have been identified for this factor.

Factor: Promotes continued learning and research of Carl Sandburg.

Assessment: Minor – results of implementing the alternative do not satisfy conditions described in the high criteria for the factor but clearly exceed minimum criteria and fall well short of resource impairment. An assessment of minor is a neutral assessment acknowledging a less than optimum environmental condition that can be successfully managed to minimize its impact on visitor experience or resource protection goals.

Opportunity to expand continued learning and research activities to a larger audience is limited by lack of adequate support facilities. Outside research is supported to the extent possible by the existing curatorial and interpretation staff. Accommodating large groups or individuals for extended periods of time is not possible. On-line data base allows some remote research to occur.

Cumulative impacts: Many people who are interested in Carl Sandburg and his works today lived during the time when he was actively writing and lecturing. As this population ages, fewer people would be available to introduce a younger and more diverse audience to the author's works. Even though many of Carl Sandburg's works are as relevant to contemporary American society today as they were when first published, fewer and fewer people would be exposed to his writings. This alternative assumes that interest in continued learning and research would decline in cumulative fashion over time. The manifestations of this trend are already being felt as the number of Sandburg works going out of print increases each year.

No significant negative cumulative impacts to resources outside park boundaries have been identified for this factor.

Factor: Provides opportunity to link park themes with local, state, national, and international education programs.

Assessment: Moderate – an assessment of moderate is a positive assessment indicating that implementing the alternative would result in conditions which generally satisfy the high criteria for the factor, but do so in a way that would not be noticed by most visitors.

Park education programs continue to be conducted primarily on site. Park themes are successfully integrated into local education programs directly by park staff with some assistance by area educators. Teacher workshops are conducted on-site and focus on park resources. Curriculum materials are developed by park staff with assistance from local educators. The full potential for state, national, and international education programs is not fully realized.

Cumulative impacts: No significant negative cumulative impacts are associated with this factor.

Natural Resource Management

This factor describes the potential changes to vegetation that could result from implementing the Connemara Lifestyle alternative.

Factor: Potential to preserve existing vegetation

Assessment: Minor – results of implementing the alternative do not satisfy conditions described in the high criteria for the factor but clearly exceed minimum criteria and fall well short of resource impairment. An assessment of minor is a neutral assessment acknowledging a less than optimum environmental condition that can be successfully managed to minimize its impact on visitor experience or resource protection goals.

Use of trails will increase as more visitors come to the park. While the future physical impact of visitors to vegetation near trails is difficult to quantify, it is logical to assume that impacts will increase in proportion to the rise in people using the trails. Impacts to sensitive vegetation associated with trail system use would be reduced by tightly controlling access to granite domes and increasing maintenance and enforcement activities in heavily affected or sensitive areas.

The construction of new visitor service infrastructure would result in removal of vegetative cover and cause associated ground disturbance. Three developments are proposed within the present boundaries of the park in this alternative.

Parking area expansion: It is expected that enlarging the visitor parking area and expanding the visitor information station would cause the removal of some tree cover in the vicinity of Front Lake and behind the existing visitor information station. Grading of the landscape is also expected as the topography of the site is moderately sloping. While actual design alternatives and construction specifications are beyond the scope of this document, it is estimated that construction activity could impact approximately 1.25 to 1.5 acres of mixed pine and hardwood woodland in the visitor services zone.

The immediate impacts associated with construction are: disturbed earth, dust, noise above the ambient, and disarray. These are short-term impacts that would be gone at the conclusion of the construction phase and may be reduced through construction site Best Management Practices. Soil runoff to Front Lake and Memminger Creek would be reduced by interception of surface water flowing over exposed earth with filter fabric barriers or other appropriate techniques. Regularly sprinkling vehicle circulation routes with water would reduce dust. Regular pick up and disposal of litter and construction debris would reduce the litter problems. Noise and disarray are short term impacts and would disappear at the conclusion of the activity. Remaining for the long term would be additional parking areas and walkways.

Amphitheater relocation: It is expected that relocating the existing amphitheater to one of the three recommended areas would cause the removal of tree cover. Grading of the landscape is expected as the topography is slightly to moderately sloping at each location. While site design alternatives and construction specifications are beyond the scope of this document, it is estimated that construction activity could impact approximately 5000 SF of mixed pine and hardwood woodland or pasture in the historic interaction zone. The immediate impacts associated with construction are: disturbed earth, dust, noise above the ambient, and disarray. These are short-term impacts that would be gone at the conclusion of the construction phase and may be reduced through construction site Best Management Practices. Soil runoff to Front Lake, Side Lake, and Memminger Creek would be reduced by interception of surface water flowing over exposed earth with filter fabric barriers or other appropriate techniques. Regularly sprinkling vehicle circulation routes with water would reduce dust. Regular pick up and disposal of litter and construction debris would reduce the litter problems. Noise and disarray are short term impacts and would disappear at the conclusion of the activity. Remaining for the long term would be an amphitheater and associated walkways.

Expansion of Administrative and Maintenance Facilities: It is expected that enlarging the headquarters and maintenance area could cause the removal of some tree cover in the general area of the existing facility. Some grading would be expected as the topography of the site is slightly sloping. While actual design alternatives and construction specifications are beyond the scope of this document, it is estimated that construction activity could impact about 1 acre of mixed pine and hardwood woodland in the park services zone.

The immediate impacts associated with construction are: disturbed earth, dust, noise above the ambient, and disarray. These are short-term impacts that would be gone at the conclusion of the construction phase and may be reduced through construction site Best Management Practices. Soil runoff to adjacent areas would be reduced by interception of surface water flowing over exposed earth with filter fabric barriers or other appropriate techniques. Regularly sprinkling vehicle circulation routes with water would reduce dust. Regular pick up and disposal of litter and construction debris would reduce the litter problems. Noise and disarray are short term impacts and would disappear at the conclusion of the activity. Remaining for the long term would be additional structures, paved surfaces, and graveled surfaces.

Cumulative impacts: Vegetation removal associated with expanding visitor parking would contribute to the overall trend of vegetation loss in the suburban landscape surrounding the park. Sound design and construction

practices could reduce the impact of potential vegetation loss resulting from these potential new developments.

Significant mitigation would be possible if legislation increasing the authorized boundary of the park was approved. Additional non-historic property acquired for view and boundary protection would allow more of the existing suburban landscape to be protected from tree removal.

Park Operations and Administration

Factors in this category describe impacts to park operations and administration that could result from implementing the Connemara Lifestyle alternative.

Factor: Minimizes maintenance and administrative responsibilities.

Assessment: Moderate – an assessment of moderate is a positive assessment indicating that implementing the alternative would result in conditions which generally satisfy the high criteria for the factor, but do so in a way that would not be noticed by most visitors.

Administration and support services personnel continue to provide adequate supervisory management and/or administrative support for park personnel and activities without increasing staff levels.

Maintenance staff continues to perform all of the maintenance responsibilities associated with the park. Current staffing levels are unchanged. Volunteer labor supplements the maintenance function to a small degree.

Resources management staff continues to fulfill its responsibilities for NEPA and Section 106 compliance, safety management, law enforcement, natural and cultural resource inventory and monitoring without additional staff. More visitors cause work load to increase gradually over time but staff is able to cope by limiting its operation to the most essential functions and improving efficiency through new technology.

The creation of additional intellectual access points and the aging of the museum collection would increase work load for museum and curatorial staff. It is anticipated that one additional full time position would be needed to address the increased work load. This alternative relies heavily on volunteer labor to fulfill the preservation responsibilities of the park.

The park interpretive staff continues to provide high quality visitor interpretation and education services to people on site and in the local community. It is anticipated that one additional full time position would be needed to address the increased work load. Volunteers continue to make a critical contribution to the interpretive and educational program efforts of the park.

More visitors and land would require the addition of a full-time law enforcement ranger to properly enforce park regulations.

Cumulative impacts: No significant negative cumulative impacts are associated with this factor.

Factor: Provides additional parking spaces.

Assessment: Exceptional – results of implementing the alternative clearly meet and exceed the high criteria. An assessment of exceptional is the most desirable assessment and indicates that implementing the alternative would most likely result in a highly desirable, unique, or beneficial environmental condition readily noticed by visitors.

Up to 30 additional parking spaces are provided at new parking area located within convenient walking distance of the park and are connected to the park entrance via a pedestrian pathway. Up to 20 additional parking spaces are created by restriping and expanding the visitor parking area in the Visitor Services Zone. Up to 10 additional spaces are created in the volunteer parking area off the back drive.

Cumulative impacts: Increased parking availability in this alternative may help reduce traffic congestion near the Park and Playhouse entrances but does not contribute significantly to the community wide parking shortage.

Factor: Enhances employee, volunteer, and visitor health and safety.

Assessment: Minor – results of implementing the alternative do not satisfy conditions described in the high criteria for the factor but clearly exceed minimum criteria and fall well short of resource impairment. An assessment of minor is a neutral assessment acknowledging a less than optimum environmental condition that can be successfully managed to minimize its impact on visitor experience or resource protection goals.

The overall park environment is safe and healthy for employees, volunteers, and visitors. The implementation of this alternative is not expected to result in the development of unsafe or unhealthy conditions over time.

Vehicle and pedestrian interaction in the visitor services zone would be enhanced by improved circulation patterns associated with the parking area expansion. Additional parking may keep some visitors from parking on the shoulder of Little River Road, but it is unlikely to be able to accommodate parking volume during periods of high visitation.

A regular two way flow of pedestrians and vehicles moves simultaneously between the headquarters and maintenance buildings and the volunteer parking area most of the day. Low vehicle speeds, safety training, and observant employees reduce the potential for accidents.



Photograph: Courtesy of Paula Steichen Polaga © 1946

Cumulative impacts: No significant negative cumulative impacts are associated with this factor.

Factor: Enhances energy conservation or reduces energy consumption.

Assessment: Minor – results of implementing the alternative do not satisfy conditions described in the high criteria for the factor but clearly exceed minimum criteria and fall well short of resource impairment. An assessment of minor is a neutral assessment acknowledging a less than optimum environmental condition that can be successfully managed to minimize its impact on visitor experience or resource protection goals.

Additional on site facilities would cause energy consumption to increase. Energy use may be reduced to a certain degree by using energy saving design and construction technologies.

Potential energy conservation may result from improvements to parking and circulation in the visitor services zone that reduce traffic congestion at the park entrance.

Cumulative impacts: No significant negative cumulative impacts are associated with this factor.

Quality of Life and Socioeconomic Environment

Factors in this category describe impacts to the quality of life and socioeconomic environment that could occur as a result of implementing the Connemara Lifestyle alternative.

Factor: Provides additional opportunities for walking.

Assessment: Minor – results of implementing the alternative do not satisfy conditions described in the high criteria for the factor but clearly exceed minimum criteria and fall well short of resource impairment. An assessment of minor is a neutral assessment acknowledging a less than optimum environmental condition that can be successfully managed to minimize its impact on visitor experience or resource protection goals.

Opportunities to walk for exercise are available. Construction of additional walking trails is possible in the visitor services zone but is not a management priority for the future. Trail side amenities remain at existing levels and connection to the greenway system occurs at the park entrance.

Cumulative impacts: No significant negative cumulative impacts are associated with this factor. Local greenway system helps reduce some of the impact of not expanding walking opportunities for local residents in the park.

Factors: Provides incentives for partnering with local governments, community groups, and individual citizens.

Assessment: Moderate – an assessment of moderate is a positive assessment indicating that implementing the alternative would result in conditions which generally satisfy the high criteria for the factor, but do so in a way that would not be noticed by most visitors.

Park management remains engaged, dedicated, and a willing member of the local community. It cooperates constructively

on issues of mutual interest and concern and works to strengthen its traditionally close relationship with friends support groups, volunteers, and local government officials. Park management recognizes the high potential for beneficial partnering relationships but does not rely solely on those relationships to accomplish management objectives.

Cumulative impacts: No significant negative cumulative impacts are associated with this factor.

Factors: Potential economic benefit to community.

Assessment: Negligible – results of implementing the alternative are notably less than the preferred condition but still exceed minimum criteria for the factor and do not cause resource impairment. An assessment of negligible generally indicates some visitors may perceive an environmental condition associated with implementation of the alternative as a distraction, inconvenience, or unfulfilled desire.

The park contributes to the local economy by attracting tourists, providing permanent and part time employment opportunities, and by purchasing goods and services from local suppliers. As the number of visitors to the site increases over time, economic benefits attributed to that increase would be apparent. It is assumed that length of stay per visitor would remain relatively unchanged. Overnight stays could increase slightly in conjunction with the increase in total visitors over time.

Potentially removes up to 25 acres from Henderson County property tax roles over time. Impact of lost property tax revenue to Henderson County may be reduced through the Federal Payment in Lieu of Taxes (PILOT) program which would reimburse the county for lost property tax revenue for a period of five years, through sales tax revenues generated by the purchase of additional goods and services from local businesses by visitors, and park purchases of construction and design services for new park infrastructure.

Cumulative impacts: No significant negative cumulative impacts are associated with this factor.

Summary of adverse effects that cannot be avoided

These are impacts that cannot be fully mitigated or avoided. Exposure of historic artifacts and manuscripts to light, heat, and humidity would continue, ultimately resulting in their removal to the museum preservation facility for permanent storage. Such impacts would be more significant in this alternative than the Sandburg Center alternative and Paths of Discovery alternative because fewer climate controlled environments are proposed to provide public access and less significant than the No Action alternative because some additional climate controlled space is proposed as part of the visitor information station renovation.

Summary of irreversible or irretrievable commitments of resources

Irreversible commitments are those that cannot be reversed, except perhaps in the extreme long term. Irretrievable commitments are those that are lost for a period of time.

Historic objects can tolerate only a finite amount of exposure to heat, humidity, and light before they must be returned to the museum preservation facility for permanent storage or major conservation treatment. In the Connemara Lifestyle alternative, exposure of historic artifacts and manuscripts to light, heat, and humidity would continue (particularly in the main house), ultimately resulting in their removal to the museum preservation facility for permanent storage. However, this alternative somewhat reduces exposures by providing a small alternative location in the renovated visitor information station where sensitive resources can be seen in a climate controlled environment.

Irretrievable commitments: New construction in the visitor services zone will result in additional walkways, paved parking areas, and other permanent visitor service infrastructure. These impacts are considered irreversible in the sense that other potential use of these resources would be lost for a significant period of time. The loss is, however, somewhat reduced by the fact that the majority of the area that could be developed is a reclaimed road bed that the Sandburgs received in the late 1950's through a land trade when the road alignment of Little River Road was changed.

Relocating the amphitheater will result in vegetation removal, additional walkways, seating and stage construction, and other permanent visitor service infrastructure. These impacts are considered irreversible in the sense that other potential uses of these resources (including historic preservation) would be lost for a significant period of time. The loss is potentially reduced by restoring the old amphitheater site to its period of significance condition.

Summary of the relationship between short-term uses of the environment and maintenance and enhancement of long-term productivity

For the purposes of this discussion, short term is defined as the time span for which this General Management Plan is expected to be effective (generally assumed to be 15-20 years) and long term is defined as a period beyond that time.

In the Connemara Lifestyle alternative, short term opportunities to reach a broader audience, create new interpretive venues, and promote access to the museum collection are limited in order to reduce additional resource management responsibility and long term financial commitment.

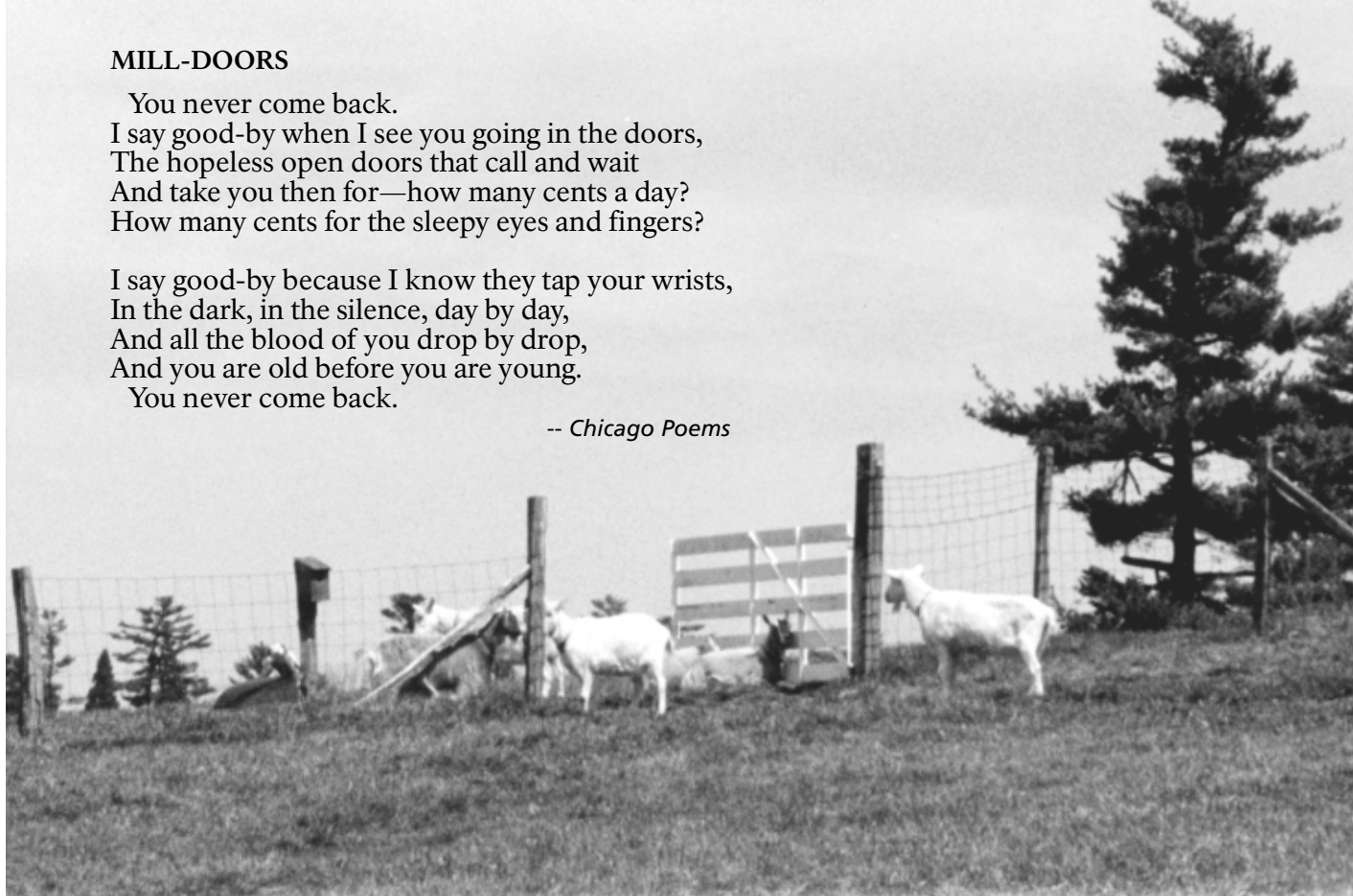


MILL-DOORS

You never come back.
I say good-by when I see you going in the doors,
The hopeless open doors that call and wait
And take you then for—how many cents a day?
How many cents for the sleepy eyes and fingers?

I say good-by because I know they tap your wrists,
In the dark, in the silence, day by day,
And all the blood of you drop by drop,
And you are old before you are young.
You never come back.

-- *Chicago Poems*



CHAPTER FIVE CONSULTATION AND COORDINATION

Chapter Overview

Solicitation of public comment on General Management Plans and Environmental Impact Statements is required under NEPA and NPS policy. More importantly however, public input helps park managers shape and improve preliminary ideas to better meet the mission of the NPS, the goals of NEPA, and the interests of the American public.

This chapter describes the public involvement program used during this project and documents the role public input played in identifying and refining the management alternatives analyzed in the Final Carl Sandburg Home General Management Plan and Environmental Impact Statement (Final GMP/EIS).

Questions about Final GMPIEIS

Questions about the Final GMP/EIS can be addressed to:

Connie Hudson Backlund, Superintendent
Carl Sandburg Home National Historic Site
81 Carl Sandburg Lane
Flat Rock, North Carolina 28731-8635

Persons wishing to submit questions by electronic mail should forward them to the following e-mail address:

carl_superintendent@nps.gov

Additional copies of the Final GMP/EIS or more information about the planning process may be obtained by:

- writing the Superintendent through U.S. Mail
- writing the Superintendent through e-mail
- telephone request - please call 828-693-4178
- visiting the project website - please point your internet browser to http://www.nps.gov/carl/gmp_info.htm

NPS policy on disclosure and anonymity for comments about planning documents.

Please note that it is the practice of the National Park Service to make comments, including names and addresses of respondents available for public review during regular business hours. If you wish to withhold your name and/or address, you must state this prominently at the beginning of your comment. It is the policy of the National Park Service not to consider anonymous comments.

The National Park Service will make all submissions from organizations or businesses, and from individuals identifying themselves as representatives or officials of organizations or businesses available for public inspection in their entirety.

Copies of letters from Federal, State, and Local government agencies are provided in Appendix C. Letters from nongovernment organizations (NGOs) and private individuals are available for review during normal business hours at the NPS Southeast Regional Office, Division of Planning and Compliance, Atlanta, Georgia. Arrangements to view letters at the Southeast Regional Office should be coordinated through the Carl Sandburg Home NHS Superintendent.

History of Public Involvement

This document culminates a 4 year planning process. Public participation has been thorough and comprehensive throughout the scoping, alternative development, Draft GMP/EIS public review, and Final GMP/EIS phases of the project.

Much of the credit for bringing this final plan to completion must be attributed to our planning partners. The NPS planning team would like to extend its sincere appreciation to those park neighbors, visitors, local politicians, local business leaders, friends groups, surviving Sandburg relatives, NC SHPO, NC DOT, USFWS, NGOs, and other public interest groups who freely shared their thoughts and concerns about our ideas. The plan's recommendations serve admirably as a reminder of the many benefits of cooperative decision making and our mutual commitment to good stewardship of the historic resources that make Connemara and the Village of Flat Rock such special places.

Scoping was initiated with a series of open house and focus group meetings in the Summer of 1999 and ongoing consultations and briefings occurred regularly thereafter. The alternatives and draft plans were covered extensively in the local print media and an internet site was created to facilitate a dialogue with persons outside of the local area (www.nps.gov/carlgmp_info.htm).

Three NPS newsletters (6/99, 10/99, 10/01), four series of public meetings hosted by NPS (6/22-24/99, 11/9/99, 10/30/01, 11/19-20/02), two public meetings hosted by the Flat Rock Village Council (4/16/02, 6/19/02), over 20 special presentations, and a draft plan (10/02) were provided to a wide variety of public and private audiences.

A summary of how public input influenced the development of management alternatives can be found in Chapter One. Public comments received about the Draft GMP/EIS and how they influenced preparation of the Final GMP/EIS are discussed in the following section.

Public Review of the Draft GMP/EIS

Availability of the Draft GMP/EIS was announced in the *Federal Register* on 10/15/02. The official 60-day public review and comment period closed on December 15, 2002.

Comment Summary

Public concern about the Draft General Management Plan was expressed primarily in four ways:

- by personal and public oral statements made during two public meetings in Hendersonville, NC on 11/19-20/02.
- through written letters or response forms submitted by individual citizens
- through written letters by NGOs or special interest groups
- through written letters by Federal, State, or Local government agencies

Approximately 25 written letters and 17 oral statements constitute the extent of public response to the Draft GMP/EIS. The relatively small number of responses is attributed to the public consultation and coordination that occurred during the alternative development phases of the project. An analysis of the public response to the draft plan resulted in several general observations:

- broad public support exists for selecting the Sandburg Center alternative as the preferred alternative
- any private property acquired by the park to protect historic views, add parking, or construct a visitor center should occur only through a willing seller/willing buyer arrangement without the exercise of eminent domain
- any development of properties for added parking or a visitor center should adhere to the setback and buffering requirements of the Flat Rock Zoning Ordinance
- no future park development should include public overnight lodging or camping facilities or permit the use of off-road recreational vehicles
- providing additional visitor service and interpretation infrastructure is supported with the understanding that potential development alternatives (1) are created using an open public planning and design process; (2) are analyzed for potential environmental impacts using an appropriate level of NEPA compliance; and (3) minimize, to the greatest extent possible, potential negative impacts to the historic and natural resource values of the park and the Village of Flat Rock.



Photograph by David Libman

Comment Analysis Methodology

After closure of the official comment period, the NPS planning team performed a 5-step content analysis of all written and oral responses to the Draft GMP/EIS.

Step One: Each letter or written response form was carefully read in its entirety. Oral responses were reviewed on videotape.

Step Two: Written responses were analyzed by physically highlighting identifiable concerns on a copy of each correspondence. Concerns derived from oral responses were paraphrased and documented in writing. When responses contained multiple concerns, each was documented separately.

Step Three: All concerns were entered into a data base. Multiple concerns about similar topics were consolidated by paraphrasing a single concern statement to reflect the common viewpoint.

Step Four: The consolidated database was analyzed and each concern classified into one of three response categories:

1. Out-of-scope
2. In-scope and substantive
3. In-scope but nonsubstantive

Out-of-scope

Concerns were classified as falling within the scope (in-scope) of decision making or falling outside that scope (out-of-scope). The Council on Environmental Quality (CEQ) regulations define

“scope of decision making” as the range of connected, cumulative, or similar actions, the alternatives and mitigation measures, and the direct, indirect, and cumulative impacts to be considered in the EIS.

Generally, concerns considered out-of-scope are those that:

- Do not address the purpose, need, or goals of the General Management Plan. For example, comments related to day-to-day operational issues such as maintenance techniques or the content of interpretive programs would be considered out-of-scope.
- Address issues or concerns that are already decided by law and policy.
- Suggest an action not appropriate for the current level of planning. For example, suggestions about architectural details or construction materials would be more appropriately addressed in a development concept plan or an implementation level plan.
- Recommend only minor editorial corrections.

In-scope and substantive

Concerns within the scope of decision making were further classified as in-scope and substantive or in-scope but nonsubstantive. NPS policy and NEPA guidelines define substantive comments as those that:

- Question, with reasonable basis, the accuracy or the information in the EIS.

- Question, with reasonable basis, the adequacy of the environmental analysis..
- Present reasonable alternatives other than those presented in the EIS.
- Cause changes or revisions in the proposal

In-scope but nonsubstantive

In-scope but nonsubstantive comments include those that simply state a position in favor of or against the proposed alternative, merely agree or disagree with NPS policy, or otherwise express an unsupported personal preference or opinion.

Step Five: The list of in-scope and substantive concerns was reexamined and appropriate responses prepared. Responses to in-scope and substantive comments often resulted in changes to the text of the Final GMP/EIS, for the purposes of clarification, if nothing else. While the NPS is required to respond only to in-scope and substantive concerns, responses were also prepared for selected out-of-scope and in-scope but nonsubstantive concerns if the planning team thought providing a response enhanced public understanding of the decision making process. Responses were not prepared for all out-of-scope or in-scope but nonsubstantive concerns.

Concerns and Responses

The agency, organization, or individual that voiced the concern is identified in parenthesis immediately following the concern statement. In instances where a number of similar concerns were made by different persons, one or two individual's names are listed to represent the entire group.

1. **Concern:** Appropriate copy should be written into all plan options to guarantee the Carl Sandburg Home NHS (1) will adhere to the setback and buffering requirements of the Zoning Ordinance of the Village of Flat Rock; (2) will not permit overnight or lodging facilities for use by the general public and; (3) will not permit use of off-road vehicles by the general public within the Carl Sandburg NHS. (Terry A. Hicks, Mayor, The Village of Flat Rock, North Carolina; Village Council of The Village of Flat Rock, North Carolina)

Response: We agree. Appropriate text has been added to the final document.

2. **Concern:** Appropriate copy should be written into the plan to guarantee that any property or conservation easement to be acquired by the National Park Service pursuant to the General Management Plan for Carl Sandburg Home National Historic Site will be acquired only on a willing seller-willing buyer basis, without the exercise of eminent domain. (Terry A. Hicks, Mayor, The Village of Flat Rock, North Carolina; Village Council of The Village of Flat Rock, North Carolina; Board of Commissioners of Henderson County, North Carolina)

Response: We agree. Appropriate text has been added to the final document. The term "willing seller-willing buyer" was used extensively in the draft document to indicate an NPS commitment not to acquire interest in property by the exercise of eminent domain (condemnation). We believe your recommendation to add the phrase "without the exercise of eminent domain" wherever the term willing seller-willing buyer appears in the document will help emphasize this commitment. In addition, definitions for willing seller-willing buyer and eminent domain have been added to the glossary.

3. **Concern:** We urge your office to carefully weigh visitor impacts when planning each project as the GMP is implemented, and to include language that reflects this goal within the GMP. (Bob Gale, Western North Carolina Alliance)

Response: As you recognize in your concern, a GMP articulates the future goals and objectives to be achieved over the next 20 year period and does not, by itself, authorize the initiation of specific construction activity. Instead, the GMP only authorizes the park to proceed with detailed planning and design development that could lead to future construction.

The Final GMP/EIS contains two important mechanisms that ensure evaluation and assessment of potential environmental impacts prior to implementation. The first mechanism establishes qualitative carrying capacity guidelines for prescriptive management zones. Such guidelines help park managers and the public recognize when carrying capacities are being exceeded. The plan also directs that park managers establish quantitative carrying capacity guidelines in more detailed planning and design documents when possible.

A second mechanism requires detailed planning and design development decisions be documented in a Development Concept Plan or other implementation level plan. A multi-disciplinary team from the NPS will consult with the public, park managers and other stakeholders in order to prepare a range of alternative designs as part of these decision making processes. A preferred alternative design will be selected based on consideration of guidance in the GMP, public input, and potential environmental impacts. By policy, an environmental assessment or environmental impact statement will be prepared to enhance everyone's understanding of the various advantages and disadvantages associated with each alternative and, ultimately, serve as the rationale for selecting a preferred course of action.

4. **Concern:** We have some concern regarding Front Lake designation as a Visitor Services Zone, which could allow for considerable activity and disruption. Past alterations/repairs



Photograph by Katie Bernseder

to the shoreline and increasing visitor use have had some impact on wildlife species historically observed in this area. Future management of this area should, to whatever extent is possible, avoid future impacts to the wildlife and plant communities that have adapted to this zone. (Bob Gale, Western North Carolina Alliance)

Response: Our intent in the draft plan was to show Front Lake in the Historic Interaction Zone, albeit surrounded by the Visitor Services Zone. This zoning configuration was created in order to accommodate continued public use of the popular, but non-historic, Front Lake Loop Trail while maintaining an appropriate level of management protection for the lake's cultural and natural resources. Your concern, and those of others on this issue, has alerted us to the fact that the maps and text of the Draft GMP/EIS did not clearly express this relationship. We have added text to the narrative discussion of the Front Lake and to the concept maps in the final document to better illustrate our intentions.

5. **Concern:** I would encourage the authors of the document to change the existing language that says "Trail amenities will not be placed on granite rock domes" to say "Trail amenities will not be placed on granite rock domes or the edges of rock domes". The granite rock dome community vegetation that is unique exists along the edges where the dirt and duff accumulate. (Ricky White, NatureServe)

Response: We agree. Appropriate text has been added to the final document.

6. **Concern:** We are concerned over some of the wording in the Sandburg Center Alternative regarding emphasis on providing multi-purpose interpretive venues, and unspecific proposals to rehabilitate historic interiors for this purpose. The general language in the Alternative could lead to intrusive components (interactive computer/AV terminals, for example) that are incompatible with the historic structures and period interpretation. (Bob Gale, Western North Carolina Alliance)

Response: We are committed to preserving and protecting the historic fabric and character of the site. However, the planning team feels strongly that creating one or more additional multi-purpose interpretive venues near the historic core is fundamental to successfully implementing the Sandburg Center concept. While it is true that several historic structure interiors are obviously unsuitable for this type of rehabilitation, our initial analysis suggests that enough potential remains to warrant a more detailed examination of the possibility in a Development Concept Plan.

We respect and share your concern that some types of interactive interpretive technology may be inappropriate for use in a historic setting. However, this plan purposefully contains few specific details about design and rehabilitation techniques so that future managers, interpretive planners, historians, architectural designers, and park stakeholders will have the flexibility to consider a full range of possible alternatives in a Development Concept Plan.

We are taking this opportunity to document your concern in the Final GMP/EIS for the benefit of future planners and designers. Public input will play an important role in determining the most appropriate locations and techniques to create multi-purpose interpretive venues. You are encouraged to contribute more specific thoughts and ideas when the park examines this issue in greater detail during a future Development Concept Plan.

- 7. Concern:** It is my judgement that the placement of waysides along the trails will have a significant negative impact upon the visitor experience since they would alter in a major way the appearance of the landscape. (Herbert A. Sierk, Hendersonville, North Carolina)

Response: We feel that outdoor interpretive media is a central component of the Sandburg Center alternative because it encourages a more thorough understanding of the life and work of Carl Sandburg among visitors who infrequently take the house tour. None the less, we are also sensitive to the fact that every non-historic addition to the landscape potentially reduces the historic ambiance of the site.

Acknowledging the park's dual responsibility to interpret and preserve the historic landscape, determining the most appropriate number, frequency, location, and types of outdoor interpretive media needed to accomplish its interpretive goals is a compelling and challenging park management issue. While the GMP provides some general guidance about waysides in its discussion of recreational carrying capacity and prescriptive management zones, detailed decisions about number and design generally occur in a Development Concept Plan. The Final GMP/EIS purposefully contains few details about these issues so that future managers, interpretive planners, media designers, and park stakeholders will have the flexibility to consider a wide range of possibilities.

We are taking this opportunity to document your concern in the Final GMP/EIS for the benefit of future planners and designers. You are encouraged to contribute more specific thoughts and ideas about wayside design and placement by participating in a future Development Concept Plan or other implementation plan that addresses wayside development.

- 8. Concern:** We request that attention be given to more complete analysis of plant and animal species, with a listing of such in the final GMP. We are concerned that collection of such information on the Site, and within any boundary expansion acreage, is essential before management activities are conducted in order to avoid or minimize any potential harmful impacts. (Bob Gale, Western North Carolina Alliance)

Response: General Management Plans are conceptual plans that focus on what conditions should be achieved and maintained in parks - with little or no detail about specific actions. Because a GMP is conceptual, information and analysis is less detailed and site specific than that required for traditional NEPA analysis in implementation plans. GMPs do not provide the level of detail necessary to precisely measure specific impacts caused by a proposed action. This makes it extremely difficult to conduct traditional impact analysis where the focus is on quantifying impacts to individual plant and animal species.

Our impact analysis suggests, and the U.S. Fish and Wildlife Service confirms, that no federally listed endangered or threatened species are found in the project area and no Federal species of concern will be affected by the proposed action. However, the plan acknowledges that additional analysis of environmental impacts to specific plant and animal species must be done as detailed planning and design development decisions are made. In conjunction with these more detailed planning efforts, NPS also acknowledges that the plan's recommendations might need to be reconsidered if more detailed analysis reveals impacts that affect endangered or threatened species in a critical manner not previously considered, new species are listed in the project area, or future designated critical habitat is determined to be affected by the proposed action.

Monitoring and research of plant and animal species that inhabit the park is an ongoing process and more is known about individual species and population trends each year. A general description of plant and animal species is provided in the discussion of natural resources in Chapter Three - Affected Environment. The most current listing of plant and animal species inhabiting the park can be found in other park documents that are more frequently updated than a General Management Plan. Please contact Park Headquarters to obtain the most recent information. A comprehensive list was not provided in this document because, as the document ages, we would prefer future decision makers to use the most current information and research available at that time.

- 9. Concern:** We believe the GMP should include active measures to control invasive exotic species throughout the historic site. (Brian P. Cole, U.S. Department of Interior, Fish and Wildlife Service)

Response: General management planning, as suggested by its name, is intended to provide only general guidance about the best way to achieve desirable resource protection and visitor experience goals. Specific details that describe active measures to control invasive exotic species are described in a Resource Management Plan or Exotic Species Management Plan.

10. Concern: We believe that the existing 264 acres of Connemara coupled with the to-be-acquired 110 contiguous acres to the west is adequate to accommodate on-site parking and whatever new building facilities Connemara contemplates. (Neil MacLellan, Flat Rock, North Carolina)

Response: The planning team considered a range of alternative locations for parking and new facilities including options within the existing park boundary and the 110 acres identified in your comment. Our analysis of these alternative areas indicates they are unsuitable or unfeasible for one or more of the following reasons: steep topography, negative impacts to historic resources and views, undesirable changes to the volume and pattern of traffic further down Little River Road, distance from park entrance, complications to visitor management, conflicts with partnership agreements, or safety concerns. A more detailed discussion of this issue is presented in Chapter Two of the document.

Distribution of the Draft and Final Documents

The Draft and Final General Management Plan and Environmental Impact Statement were distributed to the following agencies and organizations. An asterisk denotes those agencies or organizations who provided comments about the draft document.

North Carolina Congressional Delegation

- Hon. Charles H. Taylor
- Hon. John Edwards
- Hon. Jesse Helms (Draft)
- Hon. Elizabeth Dole (Final)

Federal Departments, Agencies, and Offices

- Advisory Council on Historic Preservation
- U.S. Department of Agriculture
 - Natural Resources Conservation Service
 - Pisgah National Forest
- U.S. Department of Defense
 - Army Corps of Engineers
- U.S. Department of Interior
 - U.S. Fish and Wildlife Service*
 - National Park Service
 - Blue Ridge Parkway
 - Cumberland Piedmont Network
- U.S. Environmental Protection Agency*

State of North Carolina

- North Carolina General Assembly
 - Hon. Larry Justus (Draft)
 - Hon. Carolyn Larry Justus (Final)

- Hon. Trudi Walend
- Hon. Robert C. Carpenter
- Hon. Dan Robinson (Draft)
- Hon. Tom Apodaca (Final)
- Department of Commerce
 - Division of Community Assistance
- Department of Cultural Resources
 - Division of Archives and History
 - State Historic Preservation Office*
 - N.C. State Historical Sites
 - Thomas Wolfe Memorial
- Department of Environment and Natural Resources
 - Division of Parks and Recreation
 - N.C. State Parks
- Department of Transportation
- N.C. State Forest Resources
- Blue Ridge Community College
- North Carolina National Park, Parkway and Forests Development Council*

State of Illinois

- Carl Sandburg Birthplace
- Carl Sandburg College
- Sandburg Days Festival
- University of Illinois Library
 - Rare Book and Special Collection

Henderson County

- Apple Country Greenway Commission
- Blue Ridge Fire and Rescue
- Board of Commissioners*
- Emergency Management
- Land of Sky Regional Council
- Parks and Recreation
- Planning Department
- Public Library
- Public Schools*
- Historic Johnson Farm
- Sheriff's Department
- Travel and Tourism*
- Valley Hill Fire Department

Village of Flat Rock

- Mayor and Village Council*
- Planning Board
- Greenway Committee



City of Hendersonville

- Mayor and City Council*
- Planning Department

Town of Fletcher

- Mayor and Town Council

Town of Laurel Park

- Mayor and Town Council

Organizations

- Art League of Henderson County
- Arts Center of Henderson County, Inc.
- Blue Ridge Mountain Host
- Carolina Mountain Land Conservancy*
- Community Foundation of Henderson County
- Conservation Trust of North Carolina
- Designing Our Future
- Eastern National
- Environmental and Conservation Organization of Henderson County
- Flat Rock Playhouse
- Friends of Carl Sandburg at Connemara*
- Greater Hendersonville Chamber of Commerce*
- Handmade in America

- Henderson County Arts Council
- Historic Flat Rock, Inc.*
- Mountain Area Cultural Resources Emergency Network
- National Parks Conservation Association*
- National Park Foundation
- National Park Trust*
- NatureServe*
- Southern Appalachian Man and the Biosphere
- The Nature Conservancy
- Trust for Public Land
- Village of Flat Rock Merchant's Association
- Western North Carolina Alliance*

Individuals

The Draft and Final documents were also distributed to individuals on a mailing list maintained at the park and through the project internet site.

Preparers and NPS Planning Team Personnel

NPS personnel contributing to this project function as planning team members or technical advisors. Generally, the responsibility of planning team members includes active participation in the analysis, development, and decision making processes of the project. It entails a higher level of commitment

in time and resources than being a technical advisor. The planning team relies on technical advisors to provide in-depth professional and technical expertise on specific topics identified during the planning process.

NPS Planning Team Members

- Connie Hudson Backlund - Superintendent, Carl Sandburg Home National Historic Site, NPS
- Tim Bemisderfer - Planning Team Leader, Planning and Compliance Division, Southeast Regional Office, NPS
- John Fischer - Park Planner, Planning and Compliance Division, Southeast Regional Office, NPS
- Sue Jennings, Environmental Protection Specialist, Midwest Regional Office and former Chief of Resources Management, Big South Fork NRRRA, NPS
- Lucy Lawliss - Lead, Park Cultural Landscapes Program, Cultural Resources Stewardship and Partnerships, Washington Service Office, NPS
- David Libman - Park Planner, Planning and Compliance Division, Southeast Regional Office, NPS
- Patty Lockamy - Chief of Interpretation, Blue Ridge Parkway, NPS
- Carol McBryant - Logistics Planner, Lewis and Clark NHT and former Chief of Visitor Services, Carl Sandburg Home National Historic Site, NPS
- Warren Weber, Chief of Resources Management, Carl Sandburg Home National Historic Site, NPS

NPS Technical Advisors

- John Beck - Interpretive Planner, Division of Interpretation - Southeast Regional Office, NPS
- Allen Bonhert - Chief of Curatorial Services, Cultural Resources Stewardship, Southeast Regional Office, NPS
- Susan Hitchcock - Landscape Architect, Cultural Resources Stewardship, Southeast Regional Office, NPS
- Gary Johnson - Chief, Resource Planning Division, Blue Ridge Parkway, NPS
- Bill Lane - Landscape Architect, Division of Rivers, Trails, and Conservation Assistance, Southeast Regional Office, NPS
- Richard Ramsden - Chief, Architecture Division, Southeast Regional Office, NPS
- Debbie Rehn - Architect, Architecture Division, Southeast Regional Office, NPS
- Laura Rotegard - Management Assistant and former Community Planner, Blue Ridge Parkway, NPS
- Lynn White Savage - Museum Curator, Carl Sandburg Home National Historic Site, NPS
- Ron Thoman - former Superintendent, Carl Sandburg Home National Historic Site, NPS
- Gordon Wissinger - Chief Ranger, Blue Ridge Parkway, NPS



Photograph by Katie Bemisderfer